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TITI LUCRETI CARI

DE RERUM NATURA

LIBRI SEX

WITH A TRANSLATION AND NOTES

BY

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TO BENJAMIN HALL KENNEDY D. D.

HEADMASTER OF SHREWSBURY SCHOOL

THESE VOLUMES ARE DEDICATED

BY HIS FORMER PUPIL THE EDITOR

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My dear Dr Kennedy,

On the completion of a work which has cost both thought and labour I gladly dedicate it to you, to whom indirectly it owes so much. Many years have passed since the days when I was among your earliest pupils at Shrewsbury; but the memory of the benefits then received from your instructions is as fresh as ever. A succession of scholars year after year from that time to this will bear testimony to the advantages which they have derived from your zeal skill and varied knowledge; and over and above all from that something higher which gave to what was taught life and meaning and interest: denn es muss von Herzen gehen, was auf Herzen wirken will.

The present edition claims as you will see to do something both for the criticism and for the explanation of the poem. After the masterly work of Lachmann you will think perhaps that too much space has been allotted to the former; but that portion of the book is intended partly to give the reader in a condensed shape the results of his labours, partly to add to and correct them where circumstances or design rendered them incomplete. The scandalous negligence with which Havercamp and Wakefield executed what they professed to undertake has made their editions worse than useless, as the reader who trusts to them is only betrayed and led into error. What Lachmann performed is known

to all who take an interest in such studies: from my first introduction readers will learn what opinion I entertain of his merits; they will also find that all which I have added to what he has done is with one insignificant exception derived from the original sources to which they refer. The manuscripts there cited were examined by myself; the editions and manuscript notes were open before me all the time I was at work. The large amount of critical material thus amassed I have endeavoured to put into as concise and compressed a form as possible; though much of this material needs perhaps to be recorded only once and might be greatly abridged if it has ever to appear again in a new shape.

The length of the explanatory notes calls I fancy for less excuse. This very year three centuries have elapsed since Lambinus published the first edition of his Lucretius; and from that day to this nothing new and systematical, nothing that displays pains and research has been done for the elucidation of our author. Transcendant as are the merits of that illustrious scholar, what was suited to 1564 can hardly satisfy the wants of 1864. No defence then is needed for the extent of this division of my commentary: if it were done over again, more would probably have to be added than taken away. It will not be so easy perhaps to excuse the translation. This however is really a part of the explanatory notes; and if it had been left undone, they must have been enlarged in many directions. Our author too unless I am mistaken will admit of being thus treated better than most; and the fashion of literal translations seems to be gaining ground in this country as well as in Germany and France.

To the advice and friendly assistance of my brother fellow Mr King, our highest authority in that branch of art, is due the likeness of the poet which appears on the titlepage. With K. O. Mueller, Emil Braun and other judges he is convinced that the original on a black agate represents our Lucretius. The style of

art and the finely formed letters of the name point to the late republic. Almost unknown then in other respects, in this he has been more fortunate even than Virgil, whose so-called portraits are all I am told late conventional and unreal.

Sincerely Yours

THE EDITOR

TRINITY COLLEGE, OCTOBER 1864.

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LUCRETIUS.

NOTES I

ON THE FORMATION OF THE TEXT

If Lucretius had come down to us with a text as uninjured as that of Virgil and a few other ancient writers, he could scarcely have been reckoned among the most difficult Latin poets. Certainly he would have been more easy to explain than Virgil for instance or Horace; for he tells what he has to tell simply and directly, and among his poetical merits is not included that of leaving his reader to guess which of many possible meanings was the one he intended to convey. Fortune however has not dealt so kindly with him. Not that the great mass of his poem is not in a sound and satisfactory state: in this respect he is better off than many others; but owing to the way in which it has been handed down, his text has suffered in some portions irreparable loss. It is now universally admitted that every existing copy of the poem has come from one original, which has itself long disappeared.

Of existing manuscripts a fuller account will presently be given: let it suffice for the moment to say that the two which Lachmann has mainly followed and which every future editor must follow, are now in the library of Leyden. One is a folio written in the ninth century, the other a quarto certainly not later than the tenth. Large fragments of one, if not of two others, of the same age as the quarto and very closely resembling it are also still preserved, partly in Copenhagen, partly in Vienna. These manuscripts and at least one more must have lain for centuries in the monasteries of France or Germany, where it is to be presumed they found some readers, though few if any traces of them are to be met with in the voluminous literature of the middle ages. My friend the librarian of our university with his usual readiness to impart the results of his great reading sent me some time ago a reference to Honorius of Autun in the bibliotheca maxima patrum xx p. 1001, who is there made to quote II 888 in this way, *Ex insensilibus me credas sensile gigni;* but the context proves that he meant to say *ne*, not *me*. Did this writer who flourished in the first half of the twelfth century take the line from the poem itself? Priscian inst. IV 27 cites it with

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nasci instead of *gigni*. It would not appear then to be borrowed from him, unless the editor of the bibliotheca has thought fit tacitly to substitute *gigni* from Lucretius. I have glanced through the not very voluminous works of this father, but find no other allusion to our poet; nor is he once quoted by John of Salisbury the greatest classical scholar of that age. Years ago on reading through the highly finished poem of Joseph of Exeter de bello Troiano, who lived in the same century, I noticed several expressions which at the time struck me as Lucretian; but on further consideration this appeared to be more than doubtful.

In Italy he was even more completely unknown. A catalogue which Muratori antiq. III p. 820 assigns to the tenth century, proves that the famous library of Bobbio contained at that time *librum Lucretii* I; but before the fifteenth no Italian poet or writer shews any knowledge of him whatever. In the year 1414 the celebrated Poggio Bracciolini went as apostolic secretary to the council of Constance and remained on this side the Alps in different countries, Switzerland Germany France and England, until 1420. During these years he procured from various monasteries many most important Latin works hitherto totally unknown in Italy: see Mehus' preface to his life of Ambrosius Traversarius p. xxxiii foll. Among these was a manuscript of Lucretius, obtained apparently from some German monastery either by him or his companion Bartholomew of Montepulciano in 1417 as his letters seem to indicate, and transmitted the same year to his intimate friend the Florentine Nicolò Niccoli, a most zealous scholar and patron of the revived classical studies. This manuscript which Poggio wrongly supposed to be only a part of the poem, has itself disappeared, but was the parent of every copy written during the 15th century, that is to say of every one now extant with the exception of those specified above: it must have very closely resembled the Leyden folio. 'Et te, Lucreti, longo post tempore tandem Civibus et patriae, reddit habere suae' says Landinus in his poem in praise of Poggio. Niccoli having such a treasure in his hands was in no hurry to part with it. We find Poggio writing to him many years after to remind him that he had kept his Lucretius twelve years. Soon after it is 'you have had Lucretius now for fourteen years; I want to read him, but cannot get him; do you wish to keep him another ten years?' Then he tries what coaxing will do: 'if you will send Lucretius, I shall be very much obliged; and promise not to keep the book more than a single month'. Much as Niccoli loved Poggio, he loved still more to have the sole possession of a newly discovered Latin poet, and I doubt whether Poggio saw his Lucretius at all events before his return from Rome to Florence in 1434. Niccoli died in 1437 and left behind him a manuscript written by his own hand and now in the Laurentian library, the truest representative of Poggio's lost original, as is abundantly proved by the critical notes of the present edition. Between this date and that of the earliest printed editions a knowledge of the poem was diffused through Italy by many incorrect copies. Eight of these, including Niccoli's, are preserved in the Laurentian library, all of which I have examined, two with care, as being of no small importance for the text; six are in the Vatican, all seen by me as long ago as the autumn of

1849. Of the copies in England I have had in my hands at least seven; one of these belonging to our Cambridge library has been open before me the whole time I was writing my critical notes. In the imperial library of Paris I have cast my eye over several unimportant copies. Those manuscripts which have been of any importance in forming the text will be more fully spoken of, after the printed editions have been discussed.

The editio princeps, of which only three copies are known, was printed about 1473 by Ferandus of Brescia. It is the only one of the early editions which I do not possess; I have had to trust therefore to the very unskilful collation of Gerard at the end of the Glasgow edition of Wakefield. As it was printed from a manuscript a good deal corrected, but yet inferior to such emended copies as the Cambridge ms. for instance or that which I call Flor. 31, it is of little importance in the history of the text; of far less than the two next editions, since they by accident came to be the foundation of the vulgate. The former of these was published by Paulus Fridenperger at Verona in 1486 'die vigesimo octavo septembris calen. octobris'. It was printed from a ms. closely resembling the one written by Niccoli, as may be seen by the most cursory inspection of my critical notes. It is therefore very rude and inaccurate, but being less interpolated than the editio princeps or the majority of existing mss. it represents the archetype more faithfully than these do, though there is hardly a line without some monstrous blunder. The next edition was published in Venice 'per theodorum de ragazonibus de asula dictum bresanum' 4 september 1495. From some elegiac verses at the end one C. Lycinius would appear to be its editor, if editor he can be called; for it exactly reproduces for the most part the Verona edition even in the minutest points of its perverse punctuation. There are however throughout the poem not a few differences in the two editions some of little, others of greater importance; for example IV 125—191 (190) are wanting in the Verona, but not in the Venice. The reason why I dwell on this fact will appear presently.

In December 1500 Aldus published his first edition of our poem, the first systematic endeavour to make it intelligible throughout. The editor was Hieronymus Avancius of Verona, who dates his dedication 'Kalendis Martii. M.ID', old style I presume, and really therefore 1500: an interval of twenty-two months between the two dates would not be easy to understand. Avancius is known by other works also, especially the Aldine edition of Catullus. A slight inspection will shew that he took either the Verona or the Venice edition, upon which to form his text; a more careful examination will prove that it must have been the latter. Our critical notes will furnish many other instances; let me here only mention that in III 904 he and Ven. have *torpedine* for *cuppedine*, while Ver. reads *turpidine*; 1011 he takes from Ven. its remarkable reading *egenus*, which Lachmann adopts and wrongly assigns to Marullus: Ver. follows the Leyden and all other known mss. in reading *egestas*; 1015 he and Ven. have the absurd reading *numela* for *luella*, where Ver. has the equally unmeaning *biela*. Ven. therefore is the 'ante impressus' spoken of by Aldus. Avancius' preface shews that for

his day he was a good and well-read Latin scholar, and had studied Priscian Nonius and Macrobius for the illustration of his author. Aldus in his prefatory letter to Albertus Pius confirms this, and says that he knew Lucretius by heart, 'ut digitos unguesque suos'. Avancius in his preface asserts much the same; and the few critical remarks he there inserts, shew that this was true at least to a certain extent. At the same time he admits with a seeming candour that owing to the immense difficulty of the work he has left much for others to do. Much indeed he has left undone; and it would have been a herculean task for one man fully to correct the desperately corrupt Venice edition, especially in those days when there were but few extraneous aids and the art of systematic criticism was yet in its infancy, two generations having yet to elapse, before it reached its full growth in the hands of the illustrious school of French critics. What he has done however is very great and entitles him to high praise, if it is indeed his own. But this shall be considered presently. The next edition is that of the well-known scholar Ioannes Baptista Pius, published 1511 'kal. Maii' in his native Bologna. Lucretius' text is embedded in an enormous commentary which displays amid much cumbrous learning no slight acquaintance with the Latin poets, several of which he edited before and after his Lucretius. He thus describes what he has done: 'contulimus non sine aerumnis vigiliisque diutinis codicem veneti Hermolai: et Pomponi romani: codicemque non omnino malum: qui servatur Mantuae in bibliotheca quadam suburbana: qui fuit viri non indocti gentis clarissimae Strotiorum. non defuit Philippi Beroaldi praeceptoris quondam mei: nunc collegae: impressus quidem: sed tamen perpense examinatus. Codri quoque grammatici Bononiensis: cuius copia mihi per Bartholomeum Blanchinum virum eloquii excultissimi facta est: Marullique poetae industria mira castigatum non defuit exemplar Severo Monaco Placentino graece latineque perdocto musarum athleta non gravatim offerente'. He makes no mention at all of the man to whom he was most indebted, Avancius; for his text is a reprint of the first Aldine, with however not a few changes of words or phrases, often for the better, often for the worse, either inserted in the text or proposed in the notes, and derived it may be presumed in many cases from one or other of the sources just mentioned. But strange to say when he makes a change in the text, the lemma of his note nearly always contains not this reading, but that of Avancius as if he had meant it to stand: thus I 9 he rightly reads *diffuso lumine;* but his lemma has *diffuso numine* with Avancius, which the latter however corrects at the end of his Catullus: and he adds 'sunt qui legunt *lumine*'. 15 for *capta* he wrongly inserts in the text *quodque;* but his lemma has *capta*, and his note rightly explains the construction, and makes no mention of *quodque*. 34 his text properly has *Reiicit*, his lemma *Refficit* after Avancius; 35 his text wrongly gives *suspirans*, the lemma *suspiciens;* and so throughout the poem. This very singular circumstance I explain in this way: he was living at Rome when his edition was printed and seems to have sent the text and commentary separately; for the bookseller prints at the end a long page of errors with this notice prefixed, 'Hieronymus Platonicus Bononiensis bibliopola ad lectorem. contuli Pii exemplar cum edito Lucretio: labeculasque pauculas notavi

cet.' Pius' edition was reprinted by Ascencius in 1514 with not a few changes in text, some of them taken from the notes.

The next edition must be ever memorable in the history of Lucretius, that published by Philip Giunta 'anno salutis. M.D.XII. mense martio'. Whether this means 1513 new style I cannot tell; but I know that he dates a Gellius and a Romualdi vita as published in January 1513, 'Leone pont. max. christianam R. P. moderante' and 'Leonis X anno primo'. Now Leo X only became pope in March of that year; so that here he must be speaking of 1514; and in Florence at all events this mode of dating seems to have been in common use. The editor was Petrus Candidus who, great and important as the corrections are which he has introduced, has yet used a copy of the first Aldine upon which to make them, though he has never mentioned the name of Avancius. It seems to have been the practice of those times to take at least whatever was printed without acknowledgment: thus Giunta regularly made booty of Aldus, Aldus of Giunta in turn. What is said in the present case is grounded on a close inspection of the two volumes. Candidus, where he does not designedly leave him, follows Avancius in the minutest points of spelling and punctuation. The latter for instance says in his preface that he writes 'veteres imitatus *repertumst, itemst, necessest*' and the like: Candidus in his preface that 'in tam culto, tam nitido, tam undecunque castigato poeta' he will not admit archaisms like *volgum, volnera;* or *nullast, haudquaquamst* and the like. And so in his text while rejecting Avancius' *patefactast, volnere* etc, he keeps his *frugiferenteis rapaceis* and a thousand such forms which have no authority in their favour, while those which he discards, have much. Lachmann always so hard upon Avancius says 'huius ineptissimam scribendi rationem Eichstadius studiose imitatus est', but has not a word of blame for Candidus.

But whence has the latter got his many and brilliant corrections? for few or none appear to come from himself. He says in his address to Thomas Sotherinus that what he did was to collate all the *vetusta exemplaria* that were in Florence and to expunge what was condemned by the obeli of Pontanus and Marullus, 'praestantissimorum aetate nostra vatum'. He alludes of course to John Iovianus Pontanus and his friend and pupil Michael Marullus, after Politian among the first scholars and Latin poets of the most flourishing period of Florentine learning, the latter half of the fifteenth century: 'Marullo ed il Pontan' have the honour to be mentioned together by Ariosto in the Orlando XXXVII 8. But Candidus goes on afterwards to speak only of Marullus 'cuius in hoc opere censuram potissimum secuti sumus'; and in a note at the end he says that in changing the order of verses here and in most other places he has followed the arrangement of Marullus. To Marullus therefore everything which is peculiar to the Juntine has usually been assigned, whether in the way of praise, or of blame as by Victorius and by Joseph Scaliger who inherited among many other of his father's antipathies his dislike to Marullus. But Lachmann has gone much farther than this, and has given to him not only by oversight, as will be seen in notes 1, much that belongs to older authorities; but everything that first appeared in Avancius' edition as well, calling the latter 'fur im-

probus' and other opprobrious names. That he got much assistance from the labours of Marullus is certain; but by ascribing to the latter everything that is in the Juntine, in some respects more in others less credit is given to him than he deserves. As I can throw some light on this interesting question, I will examine it at some length here and in various parts of notes 1.

The scholar poet and soldier, Michael Tarchaniota Marullus Constantinopolitanus, as he calls himself in the editions of his poems printed during his life, appears from this title and his epitaph in San Domenico at Ancona, where he and so many of his ancestors are buried, as well as from the epithet Bizantius given to him by his friend Petrus Crinitus, to have been born in Constantinople. As he can hardly have passed middle life when he perished in the river Cecina near Volterra April the 10th 1500, he must have been a mere child when on the capture of his native city he was brought to Italy, probably to Ancona. He must have received his training however in Florence, and he found a Maecenas in Lorenzo de' Medici. Though he never printed anything on Lucretius, his manuscript emendations appear to have been well known during his life, and a copy of the poet to have been found on him at his death: 'ex miseranda illa in mediis Cecinae undis Latinarum musarum iactura cladeque insigni unus est Lucretius receptus' says Candidus in his preface; and his friend Petrus Crinitus in his de honesta disciplina xv 4, published in 1504, but mostly written it would seem before Marullus' death, after well refuting an alteration of his which shall presently be referred to, adds 'quae ab eius quoque sectatoribus recepta sunt pro verissimis'. This intense love of Lucretius he seems only to have conceived in the latter years of his life. Candidus, whose preface full of feeling shews that he greatly loved Marullus and deeply deplored his untimely end, strives to make the most of what he did: he says 'Lucretianae adeo veneris per omnem aetatem studiosus fuit, ut cet.' But this must be an exaggeration: the first edition of his poems, published without a date, containing only two books of epigrams, shews so far as I can see no trace of any acquaintance with Lucretius. Catullus is chiefly imitated even in the elegiacs, and next to him Tibullus and Horace. Six pages from the beginning there is a poor poem of eight lines 'de poetis Latnis' [sic], in which he says that Tibullus Maro Terence Horace Catullus each in his kind are the only good Latin poets: *Hoc si quis inter caeteros ponet vates, Oneret quam honoret verius.* In december 1497, scarcely therefore more than two years before his death, he published at Florence a much enlarged edition. A third and fourth book of epigrams are added: in these too I find no trace of Lucretius. Then follow four books of hymni naturales. In these, especially such as are written in heroics, the strain is 'of a higher mood', and we meet with frequent imitations of Lucretius, even in the lyrics, as *Opibusque late pollens tuis* which recalls *Ipsa suis pollens opibus.* But in these heroics it is to be noticed that the rhythm is Virgilian, not in any respect Lucretian even where he closely follows the latter's language, as in the hymn to earth: *Ante repentino caeli quam territus haustu Vagiat aetheriam in lucem novus editus infans. Cum proiectus humi nudus*

iacet, indigus, exsors Auxilii, infirmusque pedum infirmusque palati. Then imitating at once and contradicting Lucretius' *ut aecumst, Cui tantum in vita restet* cet. he goes on *Atque uno non tantum infelix, quod sua damna Non capit et quantum superat perferre laborum.* This the last poem published in his lifetime is full from beginning to end of Lucretian phraseology. In this edition too he inserts two new verses in the poem 'de poetis Latinis' spoken of above, *Natura magni versibus Lucretii Lepore musaeo illitis*, the best in the poem and recalling *musaeo contingens cuncta lepore.* Crinitus l.l. XXIII 7 quotes this poem and mentions a conversation he had with Marullus in which 'factum est iudicium nuper a nostro Marullo de poetis Latinis egregie perfectum et prudenter', and Ovid and other poets are blamed; and then it is added 'itaque legendi quidem sunt omnes inquit [Marullus]; sed hi maxime probandi pro suo quisque genere, Tibullus Horatius Catullus et in comoedia Terentius. Vergilium vero et Lucretium *ediscendos asserebat*'. Let what has just been said be at once applied to a striking interpolation. After I 15 the Juntine first inserted the v. *Illecebrisque tuis omnis natura animantum*, which long kept its place in the common editions. Lachmann of course attributes it to Marullus, as do most editors. Lambinus says of it 'neque eum Naugerius neque Pontanus habuerunt. Marullus unus vir doctus ex auctoritate veteris cuiusdam codicis, quemadmodum mihi religiose asseveravit Donatus Ianottus, nobis eum restituit. amicus quidam meus ingenio et doctrina praestantissimus putat esse ab ipso Marullo factum cet.' What his authority is for that which he says of Pontanus I do not know, but Naugerius editor of the Aldine of 1515 properly omits the line, though he in general minutely copies the Juntine. Now this line is written by the hand of Angelo Politian in the margin of a manuscript which belonged to him and forms XXXV 29 of the Laurentian library. Politian died in september 1494, when Marullus could hardly yet have done much for Lucretius; and besides this as he had been long the deadly enemy of Politian, it is not likely the latter would have inserted in his manuscript one of his verses. I conclude therefore that it is Politian's own; and as Candidus says in his preface that he collated all the 'vetusta exemplaria' in Florence, he could not have neglected this manuscript which was then in the famous conventual library of San Marco. I conclude therefore that Candidus' taking it from the margin of Politian's ms. is the right explanation of Ianottus' assertion that Marullus got it from an ancient codex. It is quite possible indeed that Marullus copied it himself from this ms. which passed to San Marco immediately after Politian's decease, and thus robbed him of his verse after death, as he had robbed him of his bride during life. Naugerius has in his first page another variation from the Juntine, but that a perverse one: in I 7 he reads *Adventuque tuo* and joins it with what follows. This corruption I believe to proceed from Marullus; for his hymn to the sun contains a passage which evidently comes from Lucretius: *Cum primum tepidi sub tempora verna favoni Aura suum terris genitalem exuscitat auctum:* Adventuque dei *gemmantia prata colorat: At pecudum genus omne viget, genus omne virorum Perculsi teneras anni dulcedine mentes.* I can shew in other cases that Marullus corrupted Lucretius, where he has not been followed

by Avancius or Candidus: vi 650—652 are quite correctly given by Avancius, and in his learned preface he says with reference to 652 *Nec tota pars* cet. '*totus* prima brevi, quia *quoti* redditivus est.' Crinitus l.l. xv 4 quotes 650 651 rightly, and adds 'qua in re grammaticorum nobis authoritas patrocinatur, quando et *centesimus* et *millesimus* probe dicitur: *partem multesimam* inquit Nonius nove positum est a Lucretio pro *minima*, ne quis forte paulo incautius atque audacius a veteribus decedat. quae a me vel ob eam rationem sunt adnotata, quoniam Marullus Bizantius aetate nostra, vir alioqui diligens, paulo improbius delere haec et alia pro ingenio subdere tentavit; quae ab eius quoque sectatoribus recepta sunt pro verissimis'. Candidus gives these two verses rightly and says in note at end of Junt. 'citatur Nonio locus': he has got this clearly from Crinitus, who in the same chapter correctly quotes and illustrates i 640 *Quamde gravis* cet. which the Italian mss. and editions had corrupted: this too Candidus took from him; for Marullus appears to have read *Quam gravior Graios inter* as does Pius in his notes, and Gryphius of Lyons. Again vi 332 Avancius rightly gives *per rara viarum*, Candidus perversely after Marullus *per operta:* see his note. But fifty instances like the last might be quoted. Candidus has also missed some of the best of Marullus' conjectures: see for instance notes 1 to i 1013 where I have got from the margin of one of the Florentine mss. perhaps the most brilliant example of his critical acumen. Then again unless I greatly err I have shewn in my notes that Gifanius in preparing his edition had before him a copy of the Venice ed. of 1495, lent to him by the zealous scholar Sambucus, as he testifies both in his preface to Sambucus and in his address to the reader. In the former he says 'exemplum Lucretii ad nos dedisti, non illud quidem calamo exaratum, sed ita vetustum et idoneum, ut vicem optimi manuscripti fuerit, siquidem in eo vidi omnium paene mendorum origines, quae magnam partem a Michaele Marullo, cuius immutationes in eo adscriptae erant omnes, primum parta, mox admiserunt Florentini cet.': in the address he speaks of the 'Sambuci liber quem ipsius Marulli manu adnotatum, magno pretio vir ille praestantissimus paravit'. Why then Lachmann p. 6 should write 'neque enim facile Gifanio credere possum Marulli ipsius manu annotatum fuisse illud exemplar impressum quod se ab Iohanne Sambuco utendum accepisse scribit' I cannot comprehend. Gifanius was a dishonest plagiary, but at the same time a most astute man. Why should he tell a gratuitous falsehood which Sambucus would at once detect? He was writing only two generations after Marullus' death; and even if Sambucus gave his money for what was not the handwriting of Marullus, it was at least a genuine copy of his notes. But notes 1 furnish abundant proof of what I say: see for instance those to i 806 ii 9 v 44 and especially iii 944: I could give fifty other examples, if it were necessary. It appears then that Avancius got from Marullus much which the Juntine does not record, and on the other hand that Candidus took from Avancius without acknowledgment much that Lachmann and others assign to Marullus. Candidus, as I have said above, formed his text on a copy of the first Aldine: in doing this he must have had before him another edition with the ms. notes of Marullus, perhaps the very one which he tells us was

found on him at his death. If now all that is common to the first Aldine and the Juntine comes from Marullus, as Lachmann maintains, surely Candidus must have been struck with this coincidence, and would have recorded it against Avancius, the editor of the great rival publisher. Yet Avancius did borrow largely, very largely from Marullus especially in the case of interpolated verses made by the latter. How is this to be explained? Evidently even before his death, Marullus' labours on Lucretius were known; and probably there was more than one copy of these, the one not always agreeing with the other. On this point compare notes 1 to I 551—628, where Candidus makes some perverse transpositions of verses, on the authority of Marullus he says in his note at the end; but the learned annotator of one of the Laurentian mss. states that some put 551—564 after 576, and adds 'verum Marullo parum referre videtur quomodo legatur'. This annotator and Avancius Pius Candidus Gifanius can hardly all have had the same copy: perhaps all were different. Avancius then may have had his notes in the very copy of Ven. on which he formed his text: he may have hardly known to whom they belonged; and may have looked on them as public property which he might make use of without acknowledgment according to the practice of the time; for neither Pius nor Candidus acknowledges in his turn what he got from Avancius; nor does Naugerius the editor of Ald. 2 say a syllable of Candidus whose edition he copied with few variations.

But Lachmann to III 98 cites in proof of his charge that Avancius was a dishonest plagiary three interpolated verses which doubtless were composed by Marullus and are corruptly given in Ald. 1. In notes 1 to III 98 I have attempted to shew from Gifanius that Marullus probably wrote *putarit*, and that Avancius intended to read the same: Avancius was probably as good a Latin scholar as Marullus, if less versed in Lucretius. In the line inserted after IV 102 *multae* for *multas* may be an error of the printer or an oversight of Avancius. In that inserted after IV 532 there can be little doubt that he purposely wrote *suis*, imagining that *oris* was a plural. The correcting of texts was then in its infancy, and Avancius had so grievous a task before him in making sense out of the monstrously corrupted Venice edition, that much must in fairness be excused: we cannot tell what were the exact relations between him and Aldus and his printers. At the end of his Catullus published two years later he has taken occasion to give four pages of Lucretian criticism, in which he has proposed many excellent alterations of his former text, though I do not find that any editor before me has noticed these which are very important for his reputation: see notes 1 to II 422 and many other passages. The inference then I draw from all this is that both Avancius and Marullus did much for Lucretius, Marullus doubtless more than Avancius; that much which is peculiar to the Juntine is not from Marullus, and much of what Marullus did, is not in the Juntine. Between them they vastly improved a grievously corrupt text; and though they introduced many perversities, we ought in simple justice to take into consideration only what is good. In my notes for obvious reasons, when Ald. 1 and Junt. agree in a reading, I mention both; when a reading is peculiar to Ald. 1, I assign it to Avancius by name;

when it first appears in Junt., I still say Junt., though it is always to be inferred that the best readings are most likely due to Marullus. By assigning to him all of these one would often be doing him less, sometimes more than justice.

The Juntine closes the first great epoch of improvement in the text of Lucretius: the second Aldine edited by the well-known scholar Andrew Naugerius and dated 'mense ianuario M.D.XV.' is for the most part a mere reprint of it without however one word of acknowledgment according to the usage of the time. Yet the changes are not few, mostly for the better, not always: two instances are given above from the first page, the one a gross corruption, the other a right rejection of an interpolation. For the next fifty years Ald. 2 appears to have been the model edition. Gryphius of Lyons published several texts, three of which I have before me: they generally follow Naugerius, but not always, often recurring to Avancius. Those of 1534 and 1540 have many marginal readings, most of them taken from Avancius or the notes of Pius, a few from sources not known to me: see notes 1 to I 977 *offici-atque*. Yet even these two editions do not always agree with each other.

Little advance however was made on the Juntine before Dionysius Lambinus. He dates his address to Charles IX 1 November 1563 and afterwards speaks of his first edition as published in that year; though the title-page of my copy has 1564. Lambinus was among the most illustrious of the great Latin scholars who studied and taught at Paris in the fifteenth century. His knowledge of Cicero and the older Latin writers as well as the Augustan poets has never been surpassed and rarely equalled. Whoever doubts that the nicest critical and grammatical questions can be expressed in Ciceronian Latin without effort or affectation, let him study the commentaries of Lambinus. Truly does Scaliger say of him 'Latine et Romane loquebatur optimeque scribebat': his ease and readiness are astonishing. He made use he tells us of five mss.: four of these appear to have been Italian mss. of the fifteenth century: the fifth, of which he used a collation by Turnebus and which he calls the Bertinian, was the same as the Leyden quarto. In his preface and throughout the work he acknowledges his obligations to Turnebus and Auratus. His Lucretius is perhaps the greatest of his works: there was more to be done here, and therefore he has done more. He had moreover a peculiar admiration for this author, of whom in the preface to his third edition he says 'omnium poetarum Latinorum qui hodie exstant et qui ad nostram aetatem pervenerunt elegantissimus et purissimus, idemque gravissimus atque ornatissimus Lucretius est'. Though his boast that he has restored the text in 800 places goes beyond the truth, yet the superiority of his text over all preceding texts can scarcely be exaggerated; for the quickness of his intellect united with his exquisite knowledge of the language gave him great power in the field of conjecture, and for nearly three centuries his remained the standard text. Lachmann says he did far less than Marullus. But so far as there is truth in this, it is merely saying that the one lived before the other: nine tenths of what Marullus effected, Lambinus could have done currente calamo; but I doubt whether Marullus could have ac-

complished one tenth of what Lambinus succeeded in doing. Lachmann accuses him of strange levity and rashness. But it must be remembered that in a short life he got through an amazing amount of work in conformity with the wants of his age. He only gave two years and a half to his brilliant edition of the whole of Cicero; and probably did not spend many more months on his Lucretius than Lachmann spent years. Nor was it possible in that age even for a Lambinus to apprehend the true relation of the mss. of Lucretius to one another. His copious explanatory and illustrative commentary however calls for unqualified eulogy, and has remained down to the present day the great original storehouse, from which all have borrowed who have done anything of value for the elucidation of their author. Scaliger says 'Lambinus avoit fort peu de livres': if so, he made good use of them, as his reading is as vast as it is accurate, and its results are given in a style of unsurpassed clearness and beauty. His notes observe the mean between too much and too little: he himself calls them brief, while his thankless countrymen, thinking however more perhaps of his Horace than his Lucretius, have made *lambin* and *lambiner* classical terms to express what is diffuse and tedious. A second and much smaller edition with only a few pages of notes, but with many variations from the first, was published in 1565.

Scarcely could this first edition have issued from the press, when the well-known scholar and jurisconsult Obertus Gifanius of Buren began with systematical and unprincipled cunning to pillage it and convert it to his own purposes. His Lucretius was printed by Plantin of Antwerp in 1566 as stated at the end, though of two copies before me the title-page of one has on it 1566, the other 1565, which is the date of his own address to Sambucus, and of the two privilegia at the end; for the march 1564 of the first must be old style, as it is later than the february 1565 of the second. He brought nothing new to his task, except the ms. notes of Marullus in the old Venice ed. fully spoken of above; for the emendations and readings of Antonius Goldingamus homo Anglus, which he speaks of in his preface, and the *veteres libri* and the like which occur throughout his book are mere blinds to conceal his thefts from Lambinus. The way in which he contrives at once to bestow empty praise on this scholar and yet to extenuate his merits and put him as a commentator of Lucretius on the same level with other learned men, Turnebus for instance, is a marvel of astuteness. In the preface to his third ed. Lambinus states the truth with great terseness: 'omnia fere quae in eo Lucretio recta sunt, mea sunt; quae tamen iste aut silentio praetermittit aut maligne laudat aut sibi impudenter arrogat'. Yet so great was the skill with which all this was done that he deceived many and was thought to be a worthy rival of Lambinus. Contrary to what many believe, the age loved brief notes; and his were brief, the other's copious. Even the great critic of that generation Joseph Scaliger, who well knew the character of Gifanius and accused him of gross deceit towards himself, says 'Gifanius estoit docte, son Lucrèce est très-bon'. Lambinus however knew the truth, and his wrath was as signal as the provocation. In 1570 he brought out a third edition greatly improved and enlarged; much of the additional matter however consists in invectives against the aggressor. In a long preface

of great power and beauty of style he states his wrongs. There and throughout his commentary the whole Latin language, rich in that department, is ransacked for terms of scorn and contumely. The same charges are repeated in a thousand different shapes with curious copiousness and variety of expression. Gifanius with consistent cunning attempted no public reply to all this. Many years afterwards, when Lambinus had long been dead, a new edition of the other's book was brought out at Leyden in 1595, in which many additions are made to the brief notes, but not a word is said of the charges brought against him by Lambinus. He was rewarded for his reticence, and for a century or more opinion was divided as to whether he or Lambinus did more for Lucretius. In private he corresponded with the cankered and unhappy Muretus: the two exchanged futile charges of dishonesty against the dead critic, who was far too genuine a scholar to be capable of being a plagiary. Lachmann so stern with Avancius has nothing to say of this much more flagitious case: 'qui quo iure' he observes 'aut Lambinum aut alios compilasse dictus esset non quaesivi'. Gifanius had no business whatever to edit a poet: he was without poetical taste and grossly ignorant of metre.

For a century after Lambinus nothing was done for Lucretius: the common editions followed either Lambinus or Gifanius. In 1658 the singular labours of Gassendi were given to the world. Deeply versed in the works of the fathers and the philosophy of all ages down to the latest discoveries of Descartes he devoted himself with the zeal of a disciple to the dogmas of Epicurus. The two first of his huge folios are given to this philosophy, and a large portion of them to the exposition of Lucretius. Much that is curious may be gathered from them, and I have perused them with attention; but to say the truth I have not found much to my purpose in them. The author was utterly devoid of the critical faculty, and all that is of value in him on this head is borrowed from Lambinus; as well as the most useful of his illustrations: his corrections of the text are without exception worthless. In the 17th century several distinguished scholars, Salmasius J. F. Gronovius Nic. Heinsius Isaac Vossius, turned their attention to Lucretius; but their labours were only desultory. Of the mss. notes by the two last which are in my possession I will speak afterwards. In 1662 Tanaquillus Faber or Tanneguy Lefebvre published at Saumur a text of Lucretius followed by *emendationes* and *notulae*. He was a clever but vain man, who seemed to think such work rather beneath him; he takes care however to inform his reader that he spent but little time or pains on it, and had only Lambinus and Gifanius before him, though he owed nothing to either. The truth is that without Lambinus he could not have advanced a step: clever man that he is, he affords a good proof how grievously Latin scholarship had deteriorated in France during the century between him and Lambinus. Of Pareus Nardius Fayus nothing need be said.

Had Bentley in 1689 or 1690 succeeded in his efforts to obtain for the Bodleian Isaac Vossius' famous library, he might have anticipated what Lachmann did by a century and a half. As he was at that very time working hard at Lucretius, if he had once got into his hands the

two mss. now at Leyden, he would at a glance have seen their importance and would scarcely have failed to complete the edition which he was then meditating. The great knowledge of Epicurus' system which he displayed two years later in his Boyle lectures and his zeal for the recently published principia of Newton would have aided him in expounding the tenets of the poet. This however was not to be; but his marginal notes published in the Glasgow edition of Wakefield prove what he could have done, if he had gone on with his design. I cannot doubt that Lucretius would have suited him better than Horace, and have offered a fairer field for the exercise of his critical divination.

In 1695 there came from the Oxford press a Lucretius edited not by Bentley, but by Thomas Creech fellow of All Souls, a man of sound sense and good taste, but to judge from his book of somewhat arrogant and supercilious temper. The text is nearly always a reproduction of one or other of the editions of Lambinus: such criticism indeed he seems in his preface to look upon as beneath him. His notes are in most cases mere abridgements of those of Lambinus or copied from Faber, and his illustrations are usually borrowed from the former. All this he does as if it were a matter of course, not thinking it necessary either to avow or conceal his obligations. His *interpretatio* is his own: how far it is of assistance to a student must depend upon what he seeks for in it. His Lucretius however owing to the clearness and brevity of the notes has continued to be the popular one from that time to the present.

The worthy London bookseller Jacob Tonson published in 1712 a finely printed text with various readings at the end collected from many quarters with a good deal of trouble, some of value, most quite worthless. This I chiefly mention on account of what follows. In 1725 Sigebert Havercamp professor at Leyden gave to the world his variorum edition in two huge volumes. Though his reputation has never been great, my readers will hardly perhaps be prepared for what I am going to say. As Professor in Leyden he had the full use of the two Vossian mss. there, the main foundation of a genuine text: how did he use this advantage, which in profession he makes so much of? The chief feature of his edition is a vast and cumbrous apparatus of various readings, derived from about thirty-one sources professedly distinct. Of these thirty-one twenty-two are simply the various readings of the London edition just mentioned which Havercamp has taken and tumbled into his own without changing the notation. Most of these are of the most futile nature, taken from worthless editions which reprint or ignorantly depart from those of Giunta Aldus Lambinus or Gifanius, such as that of Pareus Gryphius Fayus Nardius and the French translator the Baron de Coutures: the more worthless the authority, the more fully it seems to be given. There are also some collations of the mss. of Vossius and that in the Bodleian which it did the London bookseller credit to get together. The nine remaining authorities are these: a certain Basil edition of 1531, its marginal readings, a collation of the Verona edition of 1487, also jottings in its margin from three unknown mss., a second collation of the Bodleian, and lastly the two all-important Leyden mss. The two last are the only authorities he has collated himself. How has he per-

formed this task? he has not noted one reading in six; the most important variations he usually omits; and the readings he gives are as often wrong as right. That which he has borrowed from others and tumbled in a lump into his edition is for the most part as worthless as the scribblings of a schoolboy. So incredibly careless is he, that the Vossian collations which he borrows from Tonson are or should be those of his Leyden mss.: see note 1 to v 471 for a glaring instance of a false reading which he slavishly copies from Tonson and ascribes to his Leyden quarto. Nay more the Bm of the London edition and his own X are one and the same Bodleiau ms.; so that we have this ludicrous result, that the same mss. are cited side by side as independent authorities. His various readings are therefore not only cumbrously inane, but are a snare and delusion, and have led astray those who like Wakefield have trusted to them. Thus in his hands the two unrivalled Leyden mss. have been worse than useless. What he does himself is always worse done than what he borrows from others, poor as that generally is: he has collated none of the old editions except the Verona, and that was done for him, and better done than he would have done it for himself. Nor are his explanatory notes much better: he has heaped together in a crude mass those of the chief editors; but except in the case of Virgil and Horace and one or two others of the best known poets, indexes to which are in everybody's hands, he has not even supplied the references to Lambinus' learned notes who from the circumstances of his age could not himself furnish them; nay in one case he has given Lambinus' own words as those of Cicero. In his two bulky volumes there is not one week's genuine work beyond what scissors and paste could do: seldom has perfomance fallen so far short of profession and opportunity.

There is nothing to detain us between Havercamp and Wakefield who in 1796 and 1797 gave his three volumes to the world, rivalling the other's in magnitude. Yet the work, such as it is, is his own, and is not a mere slothful compilation from others. Gilbert Wakefield possessed one quality which a critic can ill dispense with, that of despising any amount of authority which did not rest on some real foundation, and refusing to admit that, because a reading had appeared in edition after edition for centuries, it might by that alone claim recognition. He therefore set about a new revision which was to be based on manuscript authority alone; but neither his knowledge nor his industry nor his ability nor his taste sufficed for such a work. He professed to collate five English mss., among them our Cambridge one, and most of the old editions. This task he executed with incredible carelessness. As he had the full use of the Cambridge ms., one might have expected that his collation of it would be done with some care; but it is quite untrustworthy. From this as well as the evidence of his own notes and the nature of the case I infer that his other collations are not more to be depended upon. Had this labour been faithfully performed, it would still have been of little use, as he had no notion of the true relation of these late mss. to one another. He looked on each as an independent authority and thought he could not do wrong, if the words he put in his text were found in one or other of them. Then he had to take from Havercamp the readings of the Leyden mss., and therefore could gain no

true insight into their character. As he had no knowledge of the language or philosophy of his author, he undertook to explain whatever words he put into his text in long turgid notes of unmeaning verbiage. His work was got through with a strange precipitancy: when engaged on the first part, he had never read the other parts of the poem; when he came to them, he had forgotten what went before. Morbidly vain and utterly unconscious of the immeasurable distance between Lambinus and himself, he assails the most brilliant and certain emendations of the unrivalled scholar in a hideous jargon and in terms of abuse that would be too strong even for his own errors. Thus by some fatality or other, by its falling into the hands of a Gifanius Havercamp Wakefield instead of those of a Salmasius Gronovius Heinsius Bentley, the criticism of Lucretius remained for centuries where it had been left by Lambinus, nay even retrograded. And yet Wakefield did display occasional flashes of native genius, and our notes will shew that not a few certain corrections are due to him; but from the first to the last of his 1200 huge quarto pages there is not a single explanation of the words or philosophy of his author for which a schoolboy would thank him: so incurably inaccurate and illogical was his mind. Yet owing to the boldness with which he asserted his pretensions he was thought even by scholars to have done something great for his author: he received complimentary letters from Heyne and Jacobs, 'hominibus modestis et ab omni iudicii subtilitate abhorrentibus'; and more than thirty years afterwards Forbiger in preparing his compilation for the use of the general public took him for his supreme authority. Even later than that so great a scholar as Ph. Wagner often appeals to him in his notes to Virgil. But though long in coming the avenger was to be.

Already in 1832 Madvig in a short academical program, afterwards republished among his opuscula, exposed the futility of Wakefield's criticism and gave some intimations of the right course to pursue. Stimulated by his example more than one scholar followed up the attack. The most important contribution of this kind was made by Jacob Bernays in an article printed in the Rhenish museum of 1847. This able paper would have produced a greater effect than it did, if it had not been so soon superseded by Lachmann's more complete and systematical work. This illustrious scholar great in so many departments of philology, sacred classical and Teutonic, seems to have looked upon Latin poetry as his peculiar province. Lucretius his greatest work was the main occupation of the last five years of his life, from the autumn of 1845 to November 1850. Fortunately he had the full use for many months of the two Leyden mss. His native sagacity, guided and sharpened by long and varied experience, saw at a glance their relations to each other and to the original from whence they were derived, and made clear the arbitrary way in which the common texts had been constructed. His zeal warming as he advanced, one truth after another revealed itself to him, so that at length he obtained by successive steps a clear insight into the condition in which the poem left the hands of its author in the most essential points. Like many other great scholars he seems to have kept few or no common-place books. Resolved to master his subject he perused the grammarians and poets and nearly the whole of the older writers in

order to illustrate Lucretius through them and them by Lucretius, and the Latin language by all. He had an almost unequalled power of grasping a subject in its widest extent and filling up the minutest details. One mark of a great original critic, which eminently belongs to Lachmann, is this: even when wrong, he puts into your hands the best weapons for refuting himself, and by going astray makes the right path easier for others to find. Another test is this, when his influence extends far beyond his immediate author. Now hardly any work of merit has appeared in Germany since Lachmann's Lucretius in any branch of Latin literature without bearing on every page the impress of his example. When he is better known in England, the same result will follow here. Though his Latin style is eminently clear lively and appropriate, yet from his aim never to throw away words, as well as from a mental peculiarity of his, that he only cared to be understood by those whom he thought worthy to understand him, he is often obscure and oracular on a first reading. Had his commentary been twice the length it is, it would have been easier to master. But when once fully apprehended his words are not soon forgotten. His love for merit of all kinds incites in him a zeal to do justice to all the old scholars who have done anything for his author; while his honest scorn and hatred of boastful ignorance and ignoble sloth compel him to denounce those whom he convicts of these offences. In one instance, that of Forbiger, this sterness passes into ferocity: most of his errors that scholar could hardly avoid in the circumstances in which he was placed.

Old Hermann warns us, when we disagree with Lachmann, to think twice lest we, not he, be in fault. His defects however must not be passed over. While the most essential part of his work, the collation of the two Leyden mss., has been performed with admirable skill and industry, he has not been so happy in the use of secondary evidence, that of the Italian mss. and the older editions. Much he has taken on trust on insufficient evidence, and much that he had before him he has not always accurately used. Some proofs of this have been given, more will be seen below. But a still more serious defect must be told: he meant his book to be a critical revision of the text, and left to others the task of explaining and illustrating the meaning. So far good: but as the text of an author in the condition of that of Lucretius cannot be always rightly constructed without a sufficient knowledge of his system and its literature, he has not unfrequently strangely blundered and grossly corrupted the poet's words: for examples of this see I 599—634 II 522—529 1010 foll. V 513—516. His consummate knowledge of the Latin language as well as of the manner of Lucretius in particular enables him often to emend his author with great success. As he wishes too to produce, where it is possible, an intelligible text, many of his corrections he must himself have looked upon as only provisional. Yet his greatest admirers must concede that he has not Madvig's 'curiosa felicitas' in emendation. He has however achieved a work which will be a landmark for scholars as long as the Latin language continues to be studied, a work, *perfidiae quod post nulla arguet aetas.*

Jacob Bernays in 1852 edited a text of Lucretius for the Teubner

series. There can be little doubt that carried away by the strength of his admiration for Lachmann he has followed him too faithfully; yet he not unfrequently differs from him. Where he recalls the old reading he is generally right; where he deserts him for a conjecture of his own, he is often very successful. Had he prepared a more elaborate edition, as he appears to have once had thoughts of doing, there is no doubt that Lucretius would have owed him much. The impulse given by Lachmann to the study of our poet has called forth numerous papers either inserted in the German philological reviews or published by themselves. Some are of more, some of less importance: my notes will shew where I have been indebted to them. One English publication of eminent merit, as it criticises not the text of the poem, but its matter and poetical beauties, shall be mentioned elsewhere.

To return now to the manuscripts whose history was sketched above. Though I examined the two at Leyden for some days so long ago as the autumn of 1849, what will now be said of them is borrowed from Lachmann who had them in his hands for six months and during that time applied the whole force of his practised and penetrating intellect to unravelling all their difficulties and obscurities. Both, as already mentioned, belonged to the magnificent collection of Isaac Vossius. The older and better of the two is of the ninth century written in a clear and beautiful hand: I call it A. It has been corrected by two scribes at the time that the ms. was written, as Lachmann tells us. One of these is of great importance: in most essential points he agrees minutely with the ms. of Niccoli, the oldest of the Italian mss.; and doubtless therefore gives the reading of the archetype. It will be seen in notes 1 how often I make the united testimony of A and Niccoli to outweigh all the rest. The other Leyden ms. which I call B is of nearly equal importance: it is of quarto size closely written in double columns, apparently in the tenth century. It is probable that it and the ms. next to be mentioned were copied from some copy of the archetype, not like A from the archetype itself. Four portions of the poem are omitted in their place, but come together at the end in this order, II 757—806 V 928—979 I 734—785 II 253—304. Lachmann has demonstrated that these sections formed each an entire leaf of the lost archetype: 16 29 39 115 are the numbers of these leaves. It is manifest then that after A was copied, these leaves of the archetype had fallen out of their places and been put together without order at the end, before B, or the original of B, was copied from it. More will be said on this point presently. B has had several correctors, but all of the 15th century; one a very brilliant critic for his age, to whom are due many of the finest emendations in the poem, as will be seen in notes 1. This ms. was once in the great monastery of St. Bertin near St. Omer. Turnebus collated it in Paris and his collation as we saw was used with much effect by Lambinus: it afterwards came into the possession of Gerard John Vossius, Isaac's father. A large fragment of another ms. closely resembling B in everything double columns and all, except that it is said to be a small folio, not quarto in shape, is now at Copenhagen: it contains book I and II down to 456, omitting however the same sections as B, viz. I 734—785 and II 253—304, and doubtless

for the same reasons, because copied from the same ms. from which B was taken. It usually goes by the name of the Gottorpian fragment from the place where it once was. I have three collations of it, one published by Henrichsen in 1846, another in the handwriting of Nic. Heinsius, another in that of Isaac Vossius. Formerly it had a very high reputation: in truth it much resembles, but is more carelessly written than B, and is seldom of much use, except once or twice to confirm A against B. Strangely enough there are in the Vienna library fragments of a precisely similar ms. containing large portions of the later books, viz. II 642 to III 621 inclusive, omitting however in the proper place II 757—806 exactly as B does; then VI 743 to the end; then follow, precisely as in B, the four omitted portions given above, proving this to be copied from the ms. from which B was taken. Naturally enough these Vienna fragments were assumed to belong to one and the same ms. as the Gottorpian; but Dr. Ed. Goebel, from whom I have borrowed this description of them, seems to prove in the Rhenish Mus. n. s. XII. p. 449 foll. that the two portions now bound together are of different sizes and belonged to different mss. However that may be, the former part seems to be the same ms. as the Gottorpian, and the other if not the same, is precisely the same in internal character; and in either case is of the same, that is of very little value. Probably therefore a more accurate collation would hardly repay the labour.

All other mss. known to exist were, as has been already said, copied mediately or immediately from Poggio's lost ms. which must have resembled A almost as closely as the Gottorpian resembles B. The most important are among the eight preserved at Florence in the Laurentian, numbered 25 26 27 28 29 30 31 32 of desk XXXV. 30 was written by Nicolò Niccoli himself, who had Poggio's ms. so long in his possession: this we are told in the learned Mehus' preface to his life of Traversarius p. L. As he was the first to publish so many of Niccoli's manuscript letters, he must have known his writing better than anybody else. There are many corrections in a much later hand, but Niccoli himself seems on the whole to have copied Poggio's ms. faithfully, and not to have made many changes. His ms. therefore, as will be seen in notes 1, is of great importance in deciding between A and B. It is unfortunate that Lachmann could make no use of it: I collated it with some care in the summer of 1851: the old Verona and Venice editions have a text closely resembling Niccoli's. 31 is next in importance to 30, but of a widely different character, having a text much more corrected than Niccoli's or even Ver. and Ven. It is clearly written and in excellent preservation, and much resembles in general character the manuscript in our public library which I had open before me all the time I was writing notes 1, and which is as well preserved and as distinctly written as the other. It excels the Cambridge on the whole, though the latter has many good corrections not in the other. These two therefore I have used as good examples of corrected mss. From whom come the many excellent emendations contained in these mss. is quite unknown. Lachmann used a not very complete collation of Flor. 31, and to it he attributes the corrections which it has for the most part in common with the Cambridge and doubtless some other mss. Having been told too by

H. Keil from whom he got the collation that it was written by Antonius Marii filius, he fills his commentary from one end to the other with the name of this worthy Florentine notary. I can only say that I compared it with ten or more voluminous mss. written in magnificent style and signed by this man between 1420 and 1451 all closely resembling each other; and neither in general appearance nor in the form of particular letters nor in their abbreviations have they any resemblance to the ms. of Lucretius. This scribe's name therefore I have expelled from my notes. Of the other Laurentian mss. 29 is to be noticed for the marginal annotations of Angelo Politian spoken of above and often referred to in notes 1: it twice over has this note 'liber conventus Sancti Marci de Florentia ordinis Praedicatorum habitus a publicis sectoribus pro libris quos sibi ab eodem conventu commodatos Angelus Politianus amisit seu qui in morte Angeli Politiani amissi sunt'. 32 has some learned marginal remarks on the first book from which I have derived some facts about Marullus. The six mss. of the Vatican I collated as long ago as the autumn of 1849, but not with much care or skill; yet it will be seen from notes 1 that they have been of considerable service to me: their marks are as follows, 3275 and 3276 Vatic. 640 Urbin. 1136 and 1954 Othobon. and 1706 Regin., at the bottom of the first page of which are the words 'Nicolai Heinsii'.

As further helps I have had Gifanius' ed. of 1595 with ms. notes by Nic. Heinsius which I bought from H. G. Bohn many years ago: it will be seen that I have derived from it some valuable emendations not in Heinsius' adversaria nor elsewhere so far as I know. It has also a complete collation of A all through, of B in the first four books, and of the Gottorpian fragment. It contains too a complete collation of the codex Modii, which Heinsius denotes by *s*: he says of it 'variantes lectiones excerptae sunt ex libello edito Paris. an. 1565 quem Fr. Modius cum ms. suo contulit, ut ipse testatur fine lib. I inquiens: *Collatus cum ms. meo* 26 *Junii* 1579 *Coloniae*': it was lent to Heinsius by Liraeus; Liraeus had it from Gruter, Gruter from Nansius, Nansius from Modius himself. Heinsius says 'codex Modii non est idem cum B Vossiano, nam pag. 8 [I 227] ubi ex Modiano notatum *ad lumina*, Vossianus *in*'. Heinsius speaks I presume of the small 2nd ed. of Lambinus, as the one which Modius used: it has like others *in lumina:* if then Modius' codex is B, either he or Heinsius has made a gross mistake. I have noticed several other instances, where *s* is made to differ from B; but in these cases Lambinus' 2nd ed. has the reading which Heinsius gives to *s*, so that Heinsius may have here been misled by Modius' negligence. It would seem then that *s* and B are the same: if they are two, then their agreement is very extraordinary, much closer than between B and the Gottorpian fragment.

I also possess a copy of Faber's Lucretius with a poor collation of A and B and the Gottorp. as well as many other notes and illustrations in the writing of Isaac Vossius. Havercamp had a copy of the same notes, but has employed them with his usual carelessness. Notes 1 will shew what important use I have made of them: they have enabled me to strip him of several of the most showy feathers with which he had decked himself either from negligence or worse. Spengel Christ Goebel

and some others have in various journals and publications made much ado about a codex Victorianus as they call it, once belonging to P. Victorius, now in the Munich library, as if it were a rival, or nearly so, of A and B. From the readings cited I see clearly that it is a common Italian fifteenth century ms. neither better nor worse than twenty others, much resembling the Verona and Venice editions and of no importance whatever. It will be seen that by the materials which I have collected and just described I have in many important cases got nearer than has been done before to the readings of Poggio's ms. which was a worthy rival of the Leyden two.

But Lachmann's long experience and disciplined acuteness have enabled him to go beyond existing mss. and to tell us much of the lost original or archetype, as I call it after him, of all existing mss. Notes 1 will shew that many difficulties are cleared up by this knowledge. This archetype then, though it is not certain that even A was immediately taken from it, was written in thin capitals, like the medicean of Virgil; the words were not separated, but in the middle of verses points were put at the end of clauses. Ancient mss. as a rule keep with singular care to the same number of lines in a page: ours had 26 lines in a page, excepting only those which concluded a book. But remember there was a heading or title at the beginning of each section; and each of these headings occupied a line. Lachmann brings many proofs of this being the number. When this ms. was copied, it was clearly much torn and mutilated. It was stated above that four portions, omitted in their place by B, come together at the end, and that these each formed a leaf of the archetype which had fallen out of its place and been put at the end. Each of these alone or with its headings consists of 52 lines. Then turn to note 1 to iv 299—347 (323—347 299—322) where this inversion is explained in the same way, by the accident that is of a loose leaf being turned the wrong way: see also note 1 to i 1068—1075 and 1094—1101, where the mutilation is accounted for in the same manner. Thus we obtain six certain landmarks in different parts of the poem. The archetype therefore consisted of 300 pages, or admitting, as seems to be an undoubted fact, that a whole leaf is lost between vi 839 and 840, of 302; of which the first and last were not written upon, as well as one for some reason or other between i 785, which ends one of the loose leaves at the end of B, and 1068 which, as shewn in note 1, begins a fresh leaf. Page 190 which followed the end of iv was left blank. I may also note that p. 137 and 191 contained an index of the headings of iv and v respectively, although the different titles come in their places in these books too, as well as in the others which have no such index prefixed. Having made for myself a list of these pages after the rules stated in various places by Lachmann, I have found it of great use; as the ends of lines throughout the book towards the bottom of the several right-hand pages had been specially exposed to mutilation in the damaged archetype. Verses also omitted in their proper places were apt in this as in other mss. to be put afterwards at the bottom of pages. Besides the injuries which it had received from accident or ill usage, our archetype must in many respects have been very carelessly written,

though A and B prove that it retained many valuable vestiges of great antiquity, especially in the spelling of words, and though there may have been few stages between it and the age of the author. There is one point, the nature of the hiatus after IV 126, as to which it is not easy to accept Lachmann's theory. That there is a hiatus there, is indisputable and the special questions connected with it are fully discussed in note 1 to that passage. As the accidental loss of a whole leaf would not suit his system of pages, he boldly declares that twenty-five verses and one heading have perished, that is one single page of our archetype. Now it is easy enough, as we have seen, to explain the accidental loss of a leaf, by which every subsequent copy must necessarily want the contents of that leaf: it is easy enough to conceive any one ms., A or B or Poggio's, passing over by mistake one whole page. But it is in the highest degree unlikely that different copies, A B and Poggio's, neither of which as Lachmann admits was copied from the other, should all pass over a single page of their original; or that this single page should be wholly illegible, while that which preceded and the reverse page of the same leaf should be entirely uninjured. It seems to me therefore much more natural to assume that our archetype or one of its predecessors accidentally omitted an uncertain number of verses; or rather that a whole leaf of the archetype had been lost, as after VI 839. Lachmann's system of pagination would, then be set right in this way: only books IV and V have an *index capitum* prefixed filling one page: before this index in V Lachmann has shewn that the archetype had one blank page. Assume now that one page was similarly left blank before the index of IV and all will be right.

But we are able to advance even beyond the archetype: in many parts of the poem there are manifest undoubted interpolations, which must have been inserted by some reader who wished at one time to confirm what is said, at another to convict it of inconsistency and the like. Generally, not always, these passages are repetitions of genuine passages; sometimes they consist of several, sometimes of a single verse: I 44—49 and III 806—818 are good and incontrovertible examples. But enough is said of these throughout our notes. Lachmann however still unsatisfied has not paused even here, but has gone up to the very times of the poet. No careful reader will refuse to admit that he has proved not a few passages, some of them among the finest in the poem, to have been subsequent additions made by the author, which he did not live to embody properly with the rest of his work. Lachmann has gone too far; and unless I err, I have shewn that not a few sections, thus marked by him, are properly connected with what precedes and follows. Yet it is certain that his theory applies to II 165—183, and more than one long paragraph of IV V and VI. It has been shewn sufficiently in the notes to these passages that the most important of them have a close connexion in matter and manner with each other. Like Lachmann, I have marked them off by [ ]. All through the poem many single verses and passages of some length are designedly repeated by the poet, some of them again and again. It is probable that he would have removed many of them, if he had lived to revise his work: the exordium of IV for instance could hardly have been intended to remain.

Some readers may be surprised at the number of verses which have been transposed in the poem; but they should remember that every ancient writing which depends finally on one ms. is in a similar plight. When a scribe omitted by accident a verse, in order not to spoil the look of his book, he wrote it at once after the next verse, if he immediately discovered his error; if not, he omitted it altogether, or added it in some other place, often at the bottom of a page; he would then affix an *a*, *b* to mark the right order; the next scribe would not notice or would purposely omit these and so on: see Bentl. to Hor. ars 46. Every one of these errors has been committed again and again by the copyists of our poems. Most of these transpositions are certain and were made long ago by Lambinus Marullus Avancius and others; many were first made by Lachmann. Some of these I have not followed: not a few I have first ventured on myself. But connected with this question I must draw attention to one point which seems of importance. You would expect as a rule single verses to be thus transposed; and this is the case in Lucretius' mss. as in those of other writers: sometimes too one or more verses are repeated after the misplaced v. which ought to follow it in its proper place as if to shew the reader whither it ought to be transferred: comp. IV 991 i. e. 999 of the mss. followed in them by 1000—1003, which are only the vss. which follow it in its right place repeated after it in its wrong place: see also V 570 (573) and what comes after. But besides such usual instances of transposition there are throughout the poem many small groups of verses, forming generally sentences complete in themselves, which have got quite out of their right place: comp. I 984—987 (998—1001), II 652—657 (655—659 689) and IV 1227 1228 (1225 1226), three passages first transposed by me; also II 1139—1142, 1168—1170, III 686—690, IV 50—52, V 170 171, 1127 1128. Now that a scribe should so often transpose several consecutive verses always forming an entire and independent sentence by mere casual carelessness, is to me in the highest degree improbable. Again most of these passages read to me like possible additions not necessary to the context, though they improve it. I believe them then to be marginal additions by the poet, inserted on the same principle as the longer sections discussed above: these too the first editor, faithfully preserving everything in his copy, but not caring always to find the right place for what the author left ambiguous, has inserted out of their order. Add to these V 437—442 which the context could dispense with: these vss. are found out of place in Macrobius as in our mss. This increases the probability that they were out of their proper order from the first, two independent authorities Macrobius and our archetype quoting them in the same way. Perhaps these single vss. might be added to the list, I 1085 or 1086, IV 189, 205, VI 957, 1225, 1237, as they might all be dispensed with. Look too at IV 129—142, so strangely disordered in the mss.: 133—135 may be all marginal additions by the author afterwards wrongly placed by the editor. The ms. arrangement of IV 299—348 has been already accounted for. If all these passages are subtracted, there will then be left a not very unusual number of single verses transposed by the ordinary negligence of copyists. The numbers occasionally given on the left hand of the page denote of course the order of the lines in mss.

which Lachmann follows in his edition: where spurious vss. of the mss. are omitted from the text, he still allows them to count. For obvious reasons I have followed him in this, as he will be the future standard of comparison, and there is great advantage in a uniform numbering of the verses.

Since many special questions of orthography are noticed as they occur in the notes, I should have thought it unnecessary to say more in this place than that in essential points I follow Lachmann, if it were not for the apparent unwillingness of scholars in this country to accept even the smallest change in what they look upon as the usual or conventional rules of spelling. The notion of any uniform conventional spelling is quite a chimera: I never find two English editors following any uniform system; nay the same editor will often differ in different parts of the same book. But whence comes this 'conventional' system, so far as it does exist? from the meritorious and considering their position most successful endeavours of the Italian scholars in the fifteenth century to get rid of the frightful mass of barbarisms which the four or five preceding centuries had accumulated. They sought indeed to introduce rigorous uniformity in cases where variety was the rule of the ancients; and though these cases embraced only a few general heads, they yet comprised a great multiplicity of particular instances, because involving the terminations of cases, the assimilation of prepositions in compound verbs and the like. But where there was only one right course, they generally chose it; yet from the utter confusion into which the use of the aspirate had fallen, their own language having entirely lost it in sound, but at this time retained it in spelling; from the almost complete identity both in sound and writing of *c* and *t*, and the like, they never could tell whether *humor* or *umor*, *humerus* or *umerus*, *spatium* or *spacium*, *species* or *speties* was correct; and consequently as a rule chose the wrong. Their general principles however were not accepted by the most thoughtful scholars in any age, so far at least as concerned the text of ancient authors, unless it be during a part of the present century; neither by an Avancius in the 15th nor by a Lambinus or Scaliger in the 16th nor by a Gronovius in the 17th nor by a Bentley in the 18th. Yet this system gradually established itself, because it came to be used by scholars in their own writings, some of the barbarisms being gradually eliminated; new ones however being introduced, such as *coelum coena moereo sylva caetera* for *caelum cena maereo silva cetera* in order to derive them preposterously from Greek words.

Many attempts were made in various directions to change this state of things: the best and most systematic was that of Ph. Wagner in his orthographia Vergiliana published in 1841. With admirable industry he amassed all the evidence afforded by the medicean and, so far as it was accessible to him, of the other ancient mss. of Virgil. As these, like other old mss. are as a rule very tenacious of the true spelling in those cases where there is only one right method, he performed this part of his work with eminent success, and still remains one of the best authorities on the subject. In those other cases however alluded to above, in which variety is the rule of the ancients and which include a

great multitude of particular instances, he has chosen to abandon the safe ground of evidence and experience and has made Virgil write what he decided on a priori principles he must have written. This seems to me the reason why his system was not more generally followed. Still less satisfactory was Madvig's spelling in his de finibus published in 1839: it was utterly unlike that of the mss. and yet in many points it was not what Cicero used; in still more you could not be sure whether it was what he used or not. Here too Lachmann bringing into play his extraordinary 'power of asking the right question', and joining with it a minute knowledge of the whole evidence upon the subject, saw at once what could be attained and what could not, and shaped his course accordingly. The Leyden mss. of Lucretius, imperfect in many respects, are on the whole admirable in their orthography, at least equal to any of the mss. of Virgil, confirming them in what is true and confirmed by them in turn: in some nice points, such as the frequent retention of the enclitic *st*, they far surpass them. With their aid he was able to confirm those improvements in spelling which Wagner had so well established in opposition to the system in common use. But in regard to the other class of words in which the usage of the ancients varied in different ages or even in the same age, he did not dogmatically determine what his author wrote and thus close the door to all future change; but knowing that certainty was not here attainable, he carefully sifted the evidence offered by his mss. and made the best approximation he could to what his author might have written, always taking the most ancient form for which his authorities supplied any testimony direct or indirect. Thus the question was not foreclosed; nor were we left to vague generalities, but a firm historical groundwork was gained upon which future improvements might be built, if better evidence hereafter offered itself. Lachmann then in this, as in so many other departments of philology, seems at once to have produced conviction in the minds of the majority of the most thoughtful scholars, in Germany I mean; for in our own country most seem to scout the question as unworthy of serious attention: a great mistake; for Latin orthography is a most interesting and valuable study to those who care to examine it, and touches in a thousand points the history grammar and pronunciation of the language. Let me give two examples of the effect at once produced by Lachmann. Otto Jahn in 1843 published his elaborate edition of Persius in which he adopted throughout the spelling, then in common use, though he had so many excellent mss. to guide him to a better course: in 1851, the year after Lachmann's work came out, he published the text of his Juvenal and followed in it most minutely the principles of Lachmann; and fortunately he had a most excellent authority in the codex Pithoeanus; so that the spelling is probably not very far removed from the author's own. In the years just preceding Lachmann Halm published several orations of Cicero with elaborate critical Latin notes; and yet, though his spelling was somewhat better than that of Jahn's Persius, it is still essentially 'conventional' and arbitrary: in the years following Lachmann he published a series of school editions of Cicero's orations with brief German notes, and yet in these the spelling was wholly modelled on the system

pursued by Lachmann. The same system too he has carried out in those volumes of the elaborate edition of Cicero edited by him and Baiter, which came out after Lachmann's Lucretius. Stimulated by the examples of Madvig Ritschl and Lachmann the rising generation of German scholars has pursued the critical study of Latin with eminent success; and nearly all of them follow in orthography the guidance of Lachmann. This system then may fairly I think be now regarded as the true 'conventional' system; for surely the school of Lachmann and Ritschl in the nineteenth century has a better right to dictate to us in the present day what shall be accepted as 'conventional' than the Poggios and Vallas of the fifteenth. Ribbeck in his Virgil shews himself a most devoted pupil of Lachmann, and generally he takes the right direction; though some defect of taste and judgment makes him not unfrequently misuse his glorious opportunities and push the matter to the verge of caricature.

In following Lachmann then I am sure that I have authority on my side; I believe that I have reason as well. In those cases indeed to which I have already alluded, where the universal testimony of inscriptions and of mss. beyond a certain age prove that there is only one right way and about which the best scholars are all now agreed, there cannot be any doubt what course should be taken: we must write *querella loquella luella sollers sollemnis sollicito Iuppiter littera quattuor stuppa lammina bracchium;* on the other hand *milia conecto conexus coniti conixus coniveo conubium belua baca sucus litus* and the like; *condicio solacium, setius artus* (adj.) *autumnus suboles:* in many of them an important principle is involved: obeying the almost unanimous testimony of our own and other good mss. we cannot but give *umerus umor* and the like; also *hiemps.* I have heard it asked what then is the genitive of *hiemps:* to which the best reply perhaps would be what is the perfect of *sumo* or supine of *emo.* The Latins wrote *hiemps,* as they wrote *emptum sumpsi sumptum* and a hundred such forms, because they disliked *m* and *s* or *t* to come together without the intervention of a *p* sound; and our mss. all attest this; *tempto* likewise is the only true form, which the Italians in the 15th century replaced by *tento.* Then mss. and inscriptions prove that *d* took an *n* before it, *tandem quendam eundem* and the like, with the sole exception of *circumdo* in which the mss. both of Lucr. and Virgil always retain the *m*: and generally, though not invariably, *m* on the other hand remained before *q*: *quemquam tamquam* and so on. Then always *quicque quicquam quicquid* (indef.), but generally *quidquid* (relative); always *peremo interemo* etc. etc. Above all we must scout such barbarisms as *coelum moestus sylva caetera nequicquam.* In these points Wagner is as good a guide as Lachmann; but in regard to the cases in which ancient usage varied shall we follow the former who deserts the mss. for preconceived general rules, or Lachmann who here also is content to obey the best evidence he can get? I have unhesitatingly come over to the views of the latter: 'hypotheses non fingo' should be the rule in this as in other matters. As said above, all these uncertain spellings fall under a very few general heads. One of these is the assimilation or non-assimilation of prepositions: *inpero* represents the etymology, *impero* the pronunciation of the word. From the

most ancient period of which we have any record, centuries before Cicero or Lucretius, a compromise was made between these opposing interests: words in common use soon began to change the consonant, those in less common use retained it longer. In the new corpus inscriptionum Latinarum, the most recent of which are as old as the age of Lucretius, most of them much older, *imperator* occurs 26 times, and is always spelt with *m*, proving that in a word, which must daily have been in everybody's mouth, etymology in remote times yielded as was natural to sound: *imperium* again occurs three, *inperium* six times, being doubtless in somewhat less common use. Now in Lucretius *imperium impero* or *imperito* occurs six times, and the mss. always spell it with *m*, and so Lucretius spelt it I have no doubt: indeed many of these common words the silver age I believe more frequently wrote with *n*, than did that of Cicero. Then Virgil uses *imperium* 40 times; and Ribbeck's capital mss. have *m* in every instance, except M which twice has *inp.*, though one even of these two cases is doubtful: for Aen. VIII 381 Fogginius prints *imperiis.* Yet in defiance of all this evidence Wagner gives us *inperium*, surely without reason on any view of the case; for the foundation on which we must build is thus withdrawn from under our feet. To take another common instance, *commuto* occurs 9 times in the corpus inscr. and always with *m*; 12 times in Lucretius and always with *m*. Other words are more uncertain: we find in the mss. *impius* and *inpius*, *immortalis* and *inmortalis*, *conligere* and *colligere*, *compleo* and *conpleo;* and so with other prepositions *ab*, *ob*, *sub*, *ad:* all tending to prove that usage was in most words uncertain. Again we have *exsto* and *exto*, *exsolvo*, *exulto expiro expecto* cet., *s* being generally omitted; and this agrees with Quintilian I 74 who implies that it was a learned affectation of some to write *exspecto* in order to distinguish *ex* and *specto* from *ex* and *pecto;* it agrees too with all other good evidence: the mss. of Virgil furnish precisely the same testimony as those of Lucretius; yet Wagner in all such cases writes *exs:* surely we should keep *ex* where the mss. keep it, *exs* where they have *exs:* and so with *supter* or *subter*, *suptilis* or *subtilis*, *ab-* or *ap-*, *ob-* or *op-*, *sub-* or *sup-*, *succ-* or *susc-* and the like: we find *haud* and *haut*, and sometimes *aliut aliquit quicquit* and the like, sound and etymology carrying on an undecided battle in the mss. of Lucretius, as in inscriptions and elsewhere: *adque* is sometimes but rarely found, sound having here as might be expected gained the victory: Wagner cannot be right in always forcing *adque* on Virgil. Lucretius seems to have recognised only *sed:* he once has *elabsa*, and once *praescribta:* see notes 2 to VI 92. in such forms sound must have at an early period prevailed; and *b d g* gave way to *p t c* before *s* and *t*: *lapsus* for *labsus* is the same principle as *rex* (*recs*) *rexi* (*recsi*) written sometimes *recxi*, *rectum* from *rego:* to judge from the best mss. *labsus* and the like became again much more common in the silver age.

Another question involving a multitude of details is the use of *-is* or *-es* in the accus. plur. of participles and adjectives and substantives whose gen. plur. ends in *ium*, as well as of some other classes, *doloris* or *dolores*, *maioris* or *maiores:* here too Wagner involves himself in inextricable perplexities by his eclectic system, when his mss. were admirable

guides, had he chosen to follow them. The mss. of Lucretius are no less admirable and probably represent very fairly the author's own usage: they offer *-is* five times out of six; and *-es* is somewhat more common in substantives in very general use, as *ignes vires aures*. Inscriptions quite bear out our mss.; and the sole relic of Latin yet disinterred from Herculaneum contains this v. *Utraque sollemnis iterum revocaverat orbes.* Pertz recently printed in the Berlin transactions the few remaining leaves of a ms. of Virgil, which he assigns to the age of Augustus and which may really be of the second or third century: we there find the acc. plur. of adjectives and participles ending 18 times in *-is*, 3 times in *-es*, *pares felices amantes;* of substantives we find *sonoris*, but 4 times *vires*, and *artes messes crates classes aves*, quite bearing out the testimony of our A and B. Varro de ling. Lat. VIII 67 says *quid potest similius esse quam* gens mens dens? *quom horum casus patricus et accusativus in multitudine sint disparilis; nam a primo fit* gentium *et* gentis, *utrobique ut sit* i; *ab secundo* mentium *et* mentes, *ut in priore solo sit* i; *ab tertio* dentum *et* dentes, *ut in neutro sit* i: well our mss. six times have the acc. *gentis*, never *gentes; dentes* four times, never *dentis; mentes* five times, once only, II 620, *mentis*. As for the nomin. plur. of such words, Varro l. l. 66 says *sine reprehensione vulgo alii dicunt in singulari hac* ovi *et* avi, *alii hac* ove *et* ave. *in multitudinis hae* puppis restis *et hae* puppes restes: the fragment of Virgil just cited has the nomin. plur. *putris* and *messis*, though we saw it had *messes* in the accus.: in accordance then with these high authorities the mss. of Lucr. not unfrequently retain this nomin. in *-is*, which it would be monstrous to extirpate: I have always therefore kept it. We see from the corpus inscr. that *-eis -is -es* were all in use: it is probable that Lucr. occasionally employed the termination *-eis*, intermediate in sound between *-es* and *-is;* but, if so, his manuscripts have left few or no traces, and it would be most perverse to follow Avancius Wakefield and others in thrusting it into his verses in season and out of season. His mss. have however left not a few traces expressed or implied of the ending *-ei:* see n. to III 97 *oculei:* these traces have of course been carefully preserved.

On another question, comprehending a multitude of particular instances, I have followed Lachmann and our mss. which here too are on the whole excellent guides: I speak of the vowel or consonant *u* followed by another *u*. The old Latins appear to have been unable to pronounce *uu;* and therefore the ancient *o* long kept its place after *u;* or for *qu c* or *q* was used: *quom qum* or *cum*, never *quum; linquont linqunt* or *lincunt*, *sequontur*, *sequntur* or *secuntur*, *equos* (nom.) *equs* or *ecus; volgus divos divom aevom* and so on. They appear to have begun soonest to tolerate *uu* in terminations, when both were vowels, *suus tuus* and the like. Now the mss. of Lucretius have retained in very many instances *divom volnus volgo vivont* cet.; *equos* (nom.) and *ecus ecum*, *aecum; relinquont relinqunt* or *relincunt* oftener than *relinquunt*, so *sequontur secuntur secutus locuntur locutus;* but with Lachmann I retain the *uu*, when the mss. offer it, in order not to get lost on a sea of conjectural uncertainty like Wagner and some others. The mss. of Lucretius are also very pertinacious in retaining the genuine old forms *reicit eicit* or *eiecit* cet. and never offering *reiicit eiicit* and the like: *Grai Grais*, not *Graii Graiis*. But further details on

the most interesting points of the ancient orthography will be found in various parts of our notes. Again in those many cases where the sound was intermediate between *u* and *i* and the spelling therefore uncertain, such as the termination of participles and words like *lubet* or *libet*, *dissipat* or *dissupat*, *quadrupes* or *quadripes* and many others I have of course submitted to the guidance of our mss. as well as in the adoption of *e* or *o* in *vertere* or *vortere* and the like: *e* is naturally the more common, yet *vorti vorsum divorsi vortitur convortere vortex* are all found. The mss. too I have always followed in reading *reddunda gignundis dicundum cernundi faciundum agundis* cet. or the more usual *agendum quaerendum* cet. Do I then claim in all these doubtful cases to reproduce the spelling of Lucretius or his first editor? Certainly not; but in most of these cases Lucretius and his contemporaries undoubtedly allowed themselves much latitude; and I have not intentionally permitted anything to remain which might not have been found in one or other ms. before the death of Virgil. By adhering tenaciously to the mss. where not demonstrably wrong one gains a firm resting-place from which to make further advances, if better evidence offer itself. However that may be, I cannot bring myself to accept the arbitrary and eclectic system of a Wagner, much less the hideous barbarisms of a Wakefield; nor on the other hand, after feasting on the generous cereals of a Lachmann and a Ritschl can I stomach the 'conventional' husks and acorns of the Italians of the 15th century. At the same time it will be seen that my spelling differs less from this system, than does that of Wagner in his standard text of 1841, or even his subsequent modification of that text for common use which Prof. Conington has adopted in his Virgil.

Most of the abbreviations and marks used in the notes are sufficiently explained above: A and B denote of course the two Leyden mss., Gott. the Gottorpian fragment, Nic. Nicc. the Florentine ms. written by Nicolò Niccoli, Flor. 29, 31, 32 the mss. of the Laurentian library forming Nos. 29, 31, 32 of desk xxxv; Camb. our Cambridge ms.; Vat. or Vatic. the Vatican mss.; and Urbin. Othob. or Reg. with the number attached identify them more nearly. Brix. Ver. Ven. Ald. 1 Junt. Ald. 2 are the editions fully described above, where it has been explained when and why the names Avancius Candidus Marullus Naugerius are or are not used instead of that of one or other of these editions. The ms. notes of Heinsius and Vossius, which are often cited, indicate of course the notes by those scholars which are in my private possession and have been described above. Lamb. Wak. Lach. Bern. Bentl. need no explanation after what has been said. The dots .... imply that one verse, * that more than one or an uncertain number are lost; such interpolations as it has been deemed advisable to retain in the text, are printed in small capitals; the letters syllables and words which are omitted in the mss. but can be restored with more or less certainty, are given in Italics. In quoting Ennius the last edition, that of Vahlen, has been used; for the fragments of the Roman scenic writers, except Ennius, that of Ribbeck: in citing Cicero the smaller sections are referred to as far the most convenient: for Terence Fleckeisen; for Plautus Ritschl and Fleckeisen in the plays they have published; in the others the old variorum ed. has been employed: in Pliny Sillig's sections

are always cited, as the older divisions are intolerably awkward. Notes have been made as short as is consistent with perspicuity: unless the contrary is expressly stated or implied, the word or words which appear first in the note are those of our text; thus '*genitabilis. genitalis* etc.' signifies that *genitabilis* is the right reading and is found in A and B and the other chief authorities, but *genitalis* is mentioned for the reasons given. Again '281 *quam* Lach. for *quem. quod* Junt.' means that Lachmann first gave the correct reading *quam* instead of *quem* which is the reading of A and B and other mss. as well as editions before the Juntine of 1512 which prints *quod*, the reading generally followed by the old editors. Of course if any one before Lachmann had read *quam*, he, not Lachmann, would have been cited for it. 'Ed.' means the present editor. Let it always be remembered that the corrupt reading, cited in a note, is that which appears in A and B, unless the contrary is expressly stated.

BOOK I

11 *genitabilis. genitalis* has no authority, but it does not appear to be 'typographi Veronensis peccatum', as I found it in Vat. 1136 Othobon. 14 15: Nicolò Niccoli followed by all the Flor. mss. Camb. etc. has these verses in the right order. 14 Wak. proposes *fere* which is indeed rather the ms. reading. After 15 the v. *Illecebrisque tuis omnis natura animantum* is inserted in the Juntine and in most subsequent editions, not however by Naugerius in Aldine 2, as Lachmann incorrectly states. It has been generally assigned to Marullus, but as I found it in the margin of Flor. XXXV 29, for reasons given above p. 7 I attribute it to Angelo Politian. Nic. Nicc. and the Italians having changed in 16 *quamque* into *cunque* had rendered the sentence unintelligible without some addition. 34 *Reicit* B Gottorp. *Reficit* A Nic. Nicc. Camb. etc. *devictus. devinctus* Lamb. and scholiast of Statius. 35 Nic. Nicc. rightly gives *tereti* for the corrupt *teriti*.

44—49 = II 646—651. Is. Vossius in his ms. notes in my possession well observes that some one has inserted them here 'ut ostenderet Lucret. sibi adversari qui, cum Deos mortalia non curare affirmat [sic], Venerem tamen invocet'. Junt. omits them. Avancius in the text of Ald. 1 places them after 61 and has been followed by most editors before Lach.; but in his preface he well observes 'Unum affirmare ausim *Omnis enim* cum quinque sequentibus ex prologo, cum abundent, demendos esse: hos aptius legas, cum de magna matre agit'. 50 *Quod superest, vacuas auris animumque sagacem:* so Bernays in Rhein. Mus. n. f. V p. 559 from the interpr. Verg. in Maii class. auct. t. VII p. 262. *Quod superest ut vacuas auris* AB. Nic. Nicc. followed by all the Flor. Camb. and most mss. and all the old editions omitted *ut* and added *mihi, Memmius, et te*. Lamb. *Memmiada*. At the end of Junt. is proposed *vacuas mihi quaeso Memmius aures Semotus curis*. Lach. has rightly seen that our reading implies the loss of one or more verses in

which the poet passed from Venus to Memmius: he suggests *animumque, age, Memmi,* which would complete the sentence in a way.

66 *tollere. tendere* Lamb. ed. 3 Lach. from Nonius 'teste nostris antiquiore'. But where our mss. give, as here, a faultless reading, it seems uncritical to prefer that of such a careless writer as Nonius: older and better authorities than he is continually misquote: Seneca in 57 has *quoque* for *quove,* Gellius in 304 *aut* for *et,* 306 Nonius has *candenti* for *dicpansae in,* II 1001 Lactantius *fulgentia* for *rellatum.* 68 *fama. fana* Bentl. and Lach. who says '*fama* non omnis necessario *magna* est': *fana* may be right: see v 75; but *fama deum* seems to me more emphatic and the *deum* to be equivalent to an epithet. 70 *effringere* Priscian and also I find Flor. 29 and Vat. 1136 Othob. for *confringere,* rightly no doubt. *virtutem animi confringere* Nic. Nicc. 85 *Iphianassai* A. corr. Avanc. for Iphianassa. *Iphianasseo* Nic. Nicc. all Flor. Camb. all Vat. etc.

104 *possunt* Junt. for *possum.* As A and the Italians have *iam,* B and Gott. *me,* I once thought the right reading might be *a me fingere possum:* see Cambridge Journal of philology I p. 42 and Lucr. III 271. 111 *timendumst* Orelli eclog. in notes, Lach. for *timendum.* 121 *edens. eidem* Lach. without cause. 122 *permaneant. permanent* Ang. Politian in marg. of Flor. 29, Ver. Ven. Ald. 1 Junt. etc. followed by all before Lach. 130 *tum* Flor. 25 and 31 Camb. p. m. for *tunc.* 141 *quemvis sufferre* Flor. 32 in margin, Nic. Heinsius in ms. notes, and Faber for *quemvis efferre.* Dion. Cat. distich. III 6 has *quemvis sufferre laborem,* perhaps taken from this. 155—158 Junt. and margin of Camb. have these vs. in right order, and *et* for *ut* in 157. Avancius *et,* and at end of his edition of Catull. 1502 has right order.

161—164 are rightly thus punctuated by Lach. I find however from his proof sheets that until the final revision he had with Wakef. put a stop after *volucres* and *armenta,* and none after *caelo.* Lamb. puts a colon after *pecudes* and alters *tenerent* to *teneret.* 185 *si e nilo. e nihilo si* Junt. Lamb. etc.: so 291 *cum flumen. flumen cum* Lamb.; II 36 *si in plebeia. si plebeia in* Junt. and Lamb.: in all cases against mss. and the usage of Lucretius. A v. has been lost between 189 and 190 which in Camb. Phil. Journ. I p. 374 I have thus supplied *Res quoniam crescunt omnes et tempore certo.* Lach. awkwardly *ut par est semine certo Crescere, resque genus. crescendo* Junt. Lamb. etc. 207 *possint* Ald. 1 Junt. for *possent:* a change which will often have to be made: mss. like schoolboys are more apt to put *possent* for *possint* than vice versa. 215 *quicque* Lamb. for *quicquid.*

230 *large* Bern. for *longe. extentaque longe* Lach. But *externa,* opposed to *ingenuei* must be right: see notes 2. 240 *nexu* Junt. for *nexus.* Lamb. ed. 1 and 2 *nexas* (*nexus* ed. 1 is a misprint) and *indupedite;* ed. 3 *nexus...endopedita.* 257 *pingui* Jun. Philargyrius to Virg. G. III 124 for *pinguis,* as Heyne there notices.

271 *portus* all Vat. Flor. 29 and 31 Camb. for *cortus. pontum* Ang. Politian in marg. of Flor. 29, and Junt. and apparently Nic. Nicc. *cautes* Lach. which is very weak. 274 '*saevit, Marul.*' says Gifanius: but Junt. has rightly *sternit.* 276 *ventus* Lach. for *pontus.* 281 *quam* Lach. for *quem. quod* Junt. 289 *ruitq. aqua quidquid* Ed. for *ruit*

qua quidquid: see Camb. Journ. of phil. I p. 375. *ruitq. ita* Lach. *qua quicquam* Nic. Nicc. *ruunt quae* Faber. Lamb. Bentl. and Ph. Wagner in Philologus supp. I p. 366 in vain defend *qua quidquid.* 294 *rapide* Lach. for *rapidi* which Wak. absurdly retains. *rapidoque rotantia* Lamb. ed. 1 and 2, *rapidoque rotanti* ed. 3. 313: Isidor. Orig. xx. 14 1 'Vomer...de quo Lucretius *Uncus aratri Ferreus occulto decrescit vomer in arvis* Sumitque per detrimenta fulgorem' (not '*nitorem*'). It is odd if the last words are Isodore's own: is a line of this kind lost, *Sumitque ipse suum per detrimenta nitorem?* 321 *spatium* Lach. for *speciem...videndi.* I formerly proposed *spem omnem.* 'lege *videndo*' Bentl.

334 Bentl. says 'dele vers.'; and Lach. shews that sense and grammar prove him to be right. Spengel in the Münchn. Gel. Anz. and others do not mend the matter by placing it after 345. 349 *flent. fient* AB: 386 *fiat. flat* AB: 372 *alunt* AB: this confusion of *l* and *i* is perpetual. In the small Roman capital, of the Medicean of Virgil for instance, in which some ancestor of our mss. must have been written, these letters are often undistinguishable. 356 *possint* Ed. for *possent;* by changing the punctuation of 357 I have made the sentence quite plain. Madvig emend. Livianae p. 302 n. '*possem possim, posset possit* perpetuo errore permutantur', and p. 550 '*possent.* scribendum *possint.* non aberratur fere, ut saepe dixi, nisi ubi una littera formae distant; *esset* pro *sit* scriptum non reperias'. See 207; and below 593, 597 and 645, in all which places I have written *possint* for *possent.* Whether with Junt. Lamb. Lach. etc. you punctuate *Quod n. i. sint, q. possent c. q. Transire h. u. f. r. v.*, or with Gif. Creech Wak. etc. *Quod, n. i. s. q. p. c. q. Transire, h. u. f. r. v.*, in either case you get hardly grammar or sense: v 276 is different. in 357 B and Gott. for *fieri* have *valerent* which appears to come from ULLA twice written and FIERRI: yet Bernays in 356 reads *qua corpora quaeque valerent* for *qua possent c. q.* 366 *At* Flor. 30 ex corr. (cod. Nic. Nicc.) and Flor. 31 for *aut.* 367 *vacui minus* Junt. Lamb. etc. for *vacuim minus* B and Gott. *vacuum* Wak. Lach. etc. retain with A, the Ital. and Camb. mss.

384 *concursu* Gott. p. m. Flor. 30 corr. 31 for *concurso.* 389 *quemque. quenque* Ald. 1 Junt. for *quisque.* 404 *ferai* Nic. Nicc. Flor. 31 Camb. etc. for *ferare. ferarum* A corr. 411 *de plano* Flor. 31 for *deplano.* 412 *magnis* A corr. Nic. Nicc. all the Ital. Camb. etc. for *magnes* of A p. m. *amnes* B and Gott. and also same A corr.; whence Bentl. and Bern. read *largis haustos e. f. amnis,* making 3 changes. *magneis* N. Heins. in ms. notes.

435 434 rightly transposed by Lach.: centuries before him Flor. 32 in margin had this note, 'videtur proponere tantum de corpore, dicendo *Augmine vel* etc.; non enim conveniunt illa nisi corpori. cum tamen de inani quoque intellexisse appareat, ex illo *Sin intactile erit* etc. advertendum diligentius'. Then at bottom 'si legatur *Nam quodcumque...Cui si tactus...Augmine vel...Corporis*...patebit sermo'. 442 *possint* Flor. 31 Camb. etc. for *possunt.*

451 *nusquam. nunquam* Ver. Ven. and eds. before Lach. wrongly: comp. Aen. v 852 *clavumque....Nusquam amittebat,* and Conington there. *perniciali* Ed. for *pernitiali.* Thus Ritschl in Plaut. Mostell.

[redacted]

3 *pernicies* (though in former plays he had left the *n*) referring to Koch exerc. crit. in prisc. poet. Rom. p. 9 who produces abundant authority for this form. *perniciali* vulg. and Lach. 453 *saxist* Lach. *saxi est* Wak. for *saxis*. 454 Lach. has proved to be spurious, as a nomin. *intactus* cannot exist, and the datives are not consistent with the genitives of 453. Lamb. reads *saxis, calor ignibu', liquor aquai:* but Lucr. never uses a dat. in *ai*. 465 *Troiiugenas*, 476 *Troiianis*, 477 *Graiiugenarum* Lach. with A (477 *Graliug.* A): see Quintil. I 4 11 'sciat etiam Ciceroni placuisse, *aiio Maiiam*que geminata *i* scribere'; and Priscian inst. VII 19, who rightly says that in the oldest writings you find *eiius Pompeiius Vulteiius Gaiius* and the like: and often so in extant inscriptions. 467 *fuerunt* Gott. rightly for *fuerit* of AB. *fuere* Nic. Nicc. Flor. 31 Camb. etc. 469 *Teucris* Ed. for *terris*. *per sest* Lach. *saeclis* Bern. *rebus* Lamb. *terris* and *legionibus* Wak.

489 Lach. strangely reads *caelum, p. s. domorum Cl. it*, as if the air, like a stone wall, were a good instance of a very solid thing. All mss. have *caeli* and *ut*. *ac* Avanc. first for *ad*. 491 *ferventia* Junt. and Lamb. ed. 1 for *ferventi*. 492 *tum* Brix. Ver. Ven. for *cum*.

504 *rerum longe*. 'leg. *longe rerum*' Bentl. 517 *inane queat rerum* seems quite right. *inane in rebu' queat* Lach. *tectum* Ald. 1 Junt. Lamb. ed. 1 and 2, *verum* Bern. for *rerum*. 520 *vocaret* is the old form of *vacaret:* see F. Buecheler Rhein. Mus. n. f. XIII p. 583 etc. where he after Bergk and Fleckeisen shews that *vocuus vocivus vocare vocatio* were in use for *vacuus* etc. 525 *Distinctumst, quoniam* Lamb. most rightly for *Distinctum quoniam* which Lach. retains beginning the apodosis with *sunt ergo* in 526. Ald. 1 and Junt. seem to take *distinctum* for *distinctum est* and to understand the passage rightly. 527 *pleno* Ald. 1 and Junt. for *poena*, and *inane* for *inani*. 533 *findi* Flor. 31 Ver. Ven. for *fundi*. 542 *que renata* Lamb. for *quaeranta*.

551—628: Junt. puts 577—583 after 628, and 551—564 after 583. At the end of his edition Candidus says 'Marulli nos hoc loco ordinem, atque item alibi in plerisque, ubi immutatum quid offenderis, secutos esse'. The learned annotator of Flor. 32 says in the margin to 550 that some put 551—564 after 576, and adds 'verum Marullo parum referre videtur quomodo legatur', shewing again that there were different traditions about Marullus. Lamb. places only 577—583 after 628. All these transpositions are utterly wrong, though Candidus says of Marullus 'quem profecto, si ad amussim rem quanque examinabis, neutiquam (sic opinor) repudiaveris'. 555 *ad auctum* Ed. These words came at the end of page 23 of the archetype from which all Mss. are derived, and therefore were at the outside margin and, as has happened in so many cases, were torn away by some accident. Some one then filled up the verse with *finis* which occurs three times at the end of a line in the next thirty verses. Lach. keeps *finis* and for *summum* reads *summa* which he thus awkwardly explains, '*summa*, hoc est universo vivendi actu, *aetatis pervadere fines*, per omne vitae spatium vadere'. *summum...florem*, Junt. Lamb. ed. 1 and 2, Creech etc. which Lach. proves could only mean 'pass through' not 'arrive at the flower'. *summum...finem* Flor. 30 ex corr. Ver. Ven. Lamb. ed. 3 Wak. etc. This is doubly wrong, as *finis* in Lucretius is always feminine. 566 *possit* Ed.

for *possint*, a corruption which *constant* and *omnia* almost inevitably caused. Lach. puts 568 after 585, where it is wholly out of place; Bentl. ejects it; Junt. reads *fiunt* and *geruntur;* Lamb. Creech etc. *cumque gerantur*: all corrupting the text and making Lucretius assert the absurd truism that all things which do become soft can become soft.

578 *quaeque. quaedam* Lamb. and Lach. without cause. *quaeque corpora rebus = corpora rerum sua cuique:* comp. 599. 585 *crescendi* Ver. Ven. for *crescendis*. 588 *constent* Lach. for *constant*. 591 *inmutabili'* Lach. first for *inmutabiles. inmutabile* Flor. 31 Flor. 30 corr. Ald. 1 Junt. vulgo absurdly. 593 and 597 *possint* Ed. for *possent;* which *constet* in 594 proves to be necessary: see 356 and note there. Here too *possint* easily becomes *possent*, though *constat* does not pass into *constaret* so readily.

599—634: this passage which is difficult, but not corrupt, has been sadly mutilated by all editors from Lambinus to Lachmann and Bernays, who all in different ways force on Lucretius a succession of absurd and self-contradictory assertions. *illarum* for *illorum* in 611 is the sole change I have made, two or three slight and obvious errors of AB having been corrected in the later mss. or older editions. 599 for *quoniam* Lach. *quianam*, Bern. *quod iam*. 600 for *illius* Lach. and Bern. *ullius*. Lamb. *quoniam ext. quoiusque c. Cor. est aliquod.* 611 Lach. *ullorum* after Junt. Lamb. etc. 628 and 631 Lamb. followed by all subsequent editors perversely reads *ni* for *si*, *multis* for *nullis;* though Bentl. says '*si* ex o. mss. *nullis* ex o. mss.' 634 *quae res* Junt. rightly for *quas res*.

645 *cur possint esse requiro,...si sunt* ed. for *cur possent? requiro* etc.: comp. above 356 593 and 597. 646 *uno* B corr. Turnebus Lamb. ed. 3 Lach. for *uro*. *vero* A corr. Nic. Nicc. Flor. 31 Camb. Vat. Lamb. ed. 1 and 2 Creech. 657 *nasci* Ed. for *muse* A, *mu* B Gott. This word was the last in p. 27 of the archetype and therefore on the outside margin, and as in many other cases had become partly illegible. *mussant* Flor. 31 Camb. Lamb. ed. 2 an 3, etc. without sense. *multi* Junt. Lamb. ed. 1, etc. *inesse* Flor. 30 corr. Ver. Ven. Ald. 1 Candidus at end of Junt. *adesse* Lach. *amussim* Bern. *Memmi* Heins. in ms. notes. '*amusoe* i. e. ἄμουσοι' Is. Voss. in ms. notes. 660 *inani* Junt. for *inane*. 662 *raptim* Avanc. for *raptis*. 'quidam *raptim* agnoscunt. Marullus *natum*' Candidus at end of Junt. and so Flor. 30 corr. 665 *alia* Lach. rightly for *mia*. *ulla* Ald. 1 Junt. etc. *una* Nic. Nicc. etc. 666 *coetu stingui* Turneb. Lamb. ed. 2 and 3, etc. for *coetus stingui*. *mutare* Junt. for *musare*. Ver. Ven. Ald. 1 Lamb. ed. 1 have absurdly *in coetus stringi massareque corpus;* and Flor. 31 Camb. *mussare*. 674 *vigescat* N. Heins. in notes and Lach. for *vivescat:* comp. 757. *virescat* Nic. Nicc. vulg. 680 *decedere* Lamb. Lach. etc. for *descendere*. *discedere* A corr. Junt. etc. 681 *alia* Lamb. most rightly for *alio* which Lach. retains. Candidus at end of Junt.' *alio* pro *alii* positum. sunt qui *alia* legunt.' ? Marull. 683 *crearent* Lamb first for *crearet*. 703 *quidvis* Lach. *summam* Nic. Nicc. and all before Lach. AB Gott. omit the word.

708 *putarunt* Nic. Nicc. B corr. for *putantur* B, A corr., *putant* A p. m. 711 *longe derrasse* Vat. 3275, and unless I err 1136 Othob., for *longi derrasse* of B Gott. A corr. *longi errasse* A p. m. *longeque errasse* Nic. Nicc. etc. 720 *undis*. *undans* Lach. *almae* Bern., without cause. Priscian I 35 confirms *undis*. 721 *Italiae* Nic. Nicc. for *Haeliae*,

3

Haeolias A corr. *Aeolias* N. Heins. in ms. notes and Is. Vossius who says in ms. notes 'mss. habent *Haeolias* vel *Aeolias*. Puto olim sic dictam eam partem Italiae quam inhabitavit Jocastes Aeoli filius qui ad fretum Siculum habitabat: vid: Diodorum lib. 5. [ch. 8] G. V.' Thus Preiger and Lachmann's doubt is solved. Haverc. and Wak. also adopt this reading of Gerard father of Is. Vossius. 724 *vis ut vomat* Lamb. ed. 3 for *vis ut omniat*. *ut vis evomat* ed. 1 and 2 after Ald. 1 Junt. etc. 725 N. Heins. in mss. notes 'leg. *sursum*,' to avoid the repetition of *rursum*.

744 *frugis* AB Flor. 31 etc. not Nic. Nicc.: so IV 577 and 992 *vocis* AB. *fruges* Lach. and l. l. *voces*: he says '[membranas] quamvis consentientes imitari ausus non sum hoc loco, ubi habent *frugis*, neque in IV 577 991 1000, ubi *vocis*; quamquam apud Nonium p. 149 16 e Varrone scriptum est *pacis*, et Manilii exemplaria in III 446 habent *lucis*.' But Varro de ling. Lat. IX 76 observes '*frugi* rectus est natura *frux*, at secundum consuetudinem dicimus ut *haec avis*, *haec ovis*, sic *haec frugis*. I have no doubt then that the accus. plur. *frugis* and *vocis* come from Lucr. as well as *religionis* and the like; and that an abl. *frugi* was possible. 748 *quicquam* Ald. 1 and Junt. for *qui*. *quire* Flor. 2 Camb. Vat. 1136 Othob. which may be right. 752 *in illis* I have added; and these must I think be the actual words of the poet: see Camb. Journ. of phil. I p. 29. *prorsum* Lach. who quite misunderstands the argument. *rebus* Nic. Nicc. and all before Lach. 755 *utque* Ed. for *ut qui*: so VI 1007 mss. have *utqui* for *utque*. Lach. reads 753 *utei* for *item*, and here *funditus usque*. 758 *habebis* A corr. Nic. Nicc. etc. for *habes*. *habebas* Lamb. vulgo wrongly. 759 *veneno* Wak. Lach. for *vene*. *venena* Flor. 31 Camb. vulgo: this l. ended p. 31 of the lost archetype; and therefore these four mutilated endings of verses were on the outer margin.

769=762, repeated without meaning. 774 *animans* Junt. first for *animas*. 775 *quicque in coetu* Junt. for *quisque in coetum*. 777 *atq. ardor cum rore* Lamb. acutely for *et quodam cum rore*. 778 *rebus oportet*. *rebu' necessest* Lach. Bern. without any necessity I think: if Ennius Attius Seneca Catullus Virgil in his eclogues, Propertius Ovid and others can use the word, it is not too prosaic for Lucr. 780 *emineat* Naugerius first for *demineat*. 784 785 *hinc imbrem*, *ex imbri*, *a terra* Ald. 1 and Junt. probably from Marullus for *hinc ignem*, *ex igni*, *in terram*; and the emendation though bold is peremptorily required. 789 *pacto* Ald. I and Junt. for *facto*.

806 *ut* Prisc. for *et* of mss.: this change of a letter, as Bern. has seen, gives *imbribus* to the preceding sentence and completely restores the fine passage, which Lach. deplorably disfigures by transposing 806 and 807 and changing *arbusta* into *ambusta*, as if rain forsooth could like 'frost perform the effect of fire.' Lamb. and Gif. ed. 1 *et...vacillant*, the vulgate. Gif. ed. 2 reads *et...vacillent*, without sense, and says 'q.v. Marull. et vulg. *focillant*, q. v. *vacillant*, male.' Now Ald. 1 has *et tabes...focillant*. Ver. Ven. read *et tale...facillent*, whence comes *focillant*. But Junt. gives, as Gif. does, *et tabe...vacillent*. 814 *multa modis* Lamb. for *multimodis*. 824 *verbis* Flor. 31 Camb. Vat. etc. for *bellis*: see Lach.

830 *et*. *ut* Lach.: in five other places he changes *et*, and in two gives a far-fetched interpretation, because he says Lucr. could not use *et* for *etiam*.

834 *quom* Lach. for *quam*. Lamb. reads *Principium rerum quam* and joins it with what precedes: he is followed by all before Lach. and may be right. 'quid quod ita ne dixit quidem usquam Lucretius, sed *rerum principia* I 740 1047 II 789' says Lach. Yes, because his *primordia* are plural; but I 707 he writes *Et qui principium gignundis aera rebus Constituere* of those who have one first-beginning of things. 835 *e* Ald. 1 and Junt for *de*. 839 840 *aurique...aurum*. As he immediately enumerates the three other elements, Bentl. proposes *auraeque...auram*. 'quid hic aurum? oculos credo interpretum praestrinxit...Simplic. tamen [in Arist. phys. fol. 6 b] de Anaxag. πάντα τὰ ὁμοιομερῆ οἷον τὸ ὕδωρ ἢ πῦρ ἢ χρυσόν etc.' This and other passages seem to defend the text: yet comp. 853. 843 *ulla parte idem* Nic. Nicc. vulgo for *ulla idem parte*. *ulla idem ex parte* Lach. because Lucr. he says only omits the preposition when a genitive is added. But *in rebus* seems equivalent to one: comp. Juven. VI 437 *Adque alia parte in trutina suspendit Homerum*. 846 *illi supra quos* Ald. 1 Junt. marg. Flor. 32 for *illis uira quod* A, *quo* B Gott. *illis juxta quod* Camb. Vat. 1954 Othob. *viris iuxta quos* Flor. 31. *illis iuxta* Ang. Politian in marg. Flor. 29. 852 *effugiat* B corr. Flor. 31 for *efficiat*. 853 *sanguen an ossa* marg. Flor. 32 and Lamb. for *sanguis an os*. *sanguīs* was unknown to Lucr.: IV 1050 *sanguīs unde;* VI 1203 *sanguīs expletis;* see Lach. and add Sen. Med. 776 and Val. Flacc. III 234 *sanguīs*. Flor. 31 does not as Lach. says read *sanguis an, an os*. *sanguen os aurum* Lach. an awkward and improbable correction. 860: the verse lost here Lamb. thus supplies, *Et nervos alienigeris ex partibus esse;* which must be very like what Lucr. wrote. 866 *saniesque*. *venisque* Avanc. Lamb. Lach. without necessity I think. Avancius formed his text by correcting Ven. and it as well as Ver. have *sanisque;* hence perhaps *venis*. *mixto* Lach. after Ald. 1 Junt. Lamb. which have *misto*. *mixtim* Ang. Politian in marg. Flor. 29, which may be right. 873: here there is I believe a hiatus of two or more verses, which I formerly supplied thus, *Ex alienigenis quae tellure exoriuntur. Sic itidem quae ligna emittunt corpora, aluntur Ex* cet: comp. especially 859—866 and notes 2. In 874 I have added *his* after *lignis*. I hardly understand Lach. who reads *quae alienigenis oriuntur*. See also Luc. Müller de re metrica, p. 284, who seems to prove that a monosyll. diphthong is never elided before a short vowel. Junt. followed by Gif. Creech omits both 873 and 874. Lamb. followed by Wak. only 873; which seems absurd: he reads in 874 *lignis exoriuntur* with Flor. Camb. etc.

882 *cum saxi* Ald. 1 Junt. etc. for *cum in saxi*, 884 *lapidi lapidem* Junt. etc. for *lapidi in lapidem*. 'recte, ut puto, etsi cur addita sit [praep. *in*] non intellego' Lach. *terimus* Nic. Nicc. for *tenemus*. 885 *herbis*. *herbas* Ald. 1 Junt. Lach. vulgo. 886 *laticis* Flor. 31 Camb. for *latices*. 887 *quali* B, *qualis* A, *quales* A corr. Nic. Nicc. Flor. 31 Camb. *ubere*. *ubera* Lamb.: the exact reading is uncertain. 890 *inter terram* Lach. first for *in terram:* other editors have blundered strangely. *res* added by Nic. Nicc. B corr. etc. 900 *flammai* Junt. for *flammae:* a simple correction, yet overlooked by many of the later editors. Even Nauger has here deserted Junt. and reads *fulserunt flammae fulgore*. 909 *contineantur* Nauger. for *contingantur*. 912 *et* B corr. Wak. for *e*.

932 *animum*. *animos* Lamb. Creech after Lactantius inst. I 16. Pius

says 'modulatius *animos* leges'. But IV 7 *animum* Lamb. *animos* Creech. 942 *pacto* N. Heins. in ms. notes and Lach. rightly for *facto*. 954 *Necne sit* Lamb. for *nec sit*. 957 *vasteque* Nic. Nicc. corrupted into *adusque;* his followers *adusque* into *vel adusque;* or, as Ald. Junt. marg. Flor. 32, *patefiat ad usque*. 971 *Id validis* Lamb. first for *Invalidis*. Flor. 32 in margin explains *invalidis* as *valde validis*. 977 *officiat* Lamb. rightly and before him Gryphius Lyons 1534 and 1540 for *efficiat*, after the constant usage of Lucr. 984—987 (998—1001) I have elsewhere proved should come in this place.

991 (987) *confluxet* Flor. 31 first for *confluxit*. 997 (993) *nullast* Politian in marg. Flor. 29 Ver. Ven. Heins. in ms. notes for *nullas*. 1000 (996) *e* supplied by Lach. is better than *in* of older editors. *inferna* is quite right: see Camb. Journ. of phil. I p. 33. Lach. wrongly follows Ald. 1 Junt. Lamb. etc. in reading *aeternaque* and adds 'rei convenienter, quamvis secus videatur Wakefieldo et Forbigero, qui quotiens philosophantur delirant': an insult quite out of place here.

1008: a new paragraph should commence with this verse. 1009 *inani* Ald. 1 Junt. for *inane*. 1013 Madvig opusc. pr. p. 313 rightly supposes some verses lost here; and long before him Marullus did the same, as I find from the margin of Flor. 32: 'credit Marullus deesse hic aliqua carmina, quae continerent transitum ab infinitate inanis ad infinitatem corporum; in his enim *Nec mare nec tellus*...procul dubio agit de infinitate corporum, cum supra [953] de utroque infinito se dicturum promiserit'. Lach. places the mark of hiatus after 1012, giving a most involved explanation of the passage. His arrangement moreover is scarcely grammatical, as *pateat* is thus answered in the apodosis by imperfects and pluperfects. Indeed the lacuna does not appear to me so great as it did either to Madvig or Lach. The poet has not only shewn already that the *omne quod est*, but also 988 (984)—1007, that the *omne quod est spatium* is infinite. He now, 1008 etc., shews that matter is infinite. I formerly proposed roughly to supply what is wanting thus, *Sed spatium supra docui sine fine patere. Si finita igitur summa esset materiai, Nec mare cet.* 1023 The last four words are rightly supplied by Junt. from V 421; the mss. here repeat the last three of 1022. Avancius blunders sadly, doubtless from not understanding what he is taking from others. 1028 *rerum* Faber and Bentl. from V 194 most rightly for *rebus*. 1033 *summissaque* Junt. for *summaque*. 1034 *Floreat* Flor. 31 Camb. etc. for *floreant*. 1041 *uiui* B corr. and vulgo for *via*. *viaque* Lach. But *ratione viaque* surely means 'by method and system': see Cic. de fin. I 29 *ut ratione et via procedat oratio*. 1047 *principiis* Junt. for *principium*.

1061 *Et simili*. Lach. reads *Adsimili* and joins with it the preceding verse, putting a full stop at *posta*. I think him quite wrong: the simile is exactly the same as IV 418, where also Lach. makes unnecessary changes. 1068—1075: these 8 mutilated verses came at the beginning of p. 45 of the archetype; and the ends were therefore at the outer margin. B and Gott. omit them altogether, but append a cross and VIII. Nic. Nicc. gives them imperfect as in A. The later ms. Ald. 1 Junt. Lamb. complete them in various ways. I formerly suggested in 1068 *error falsa probavit* or *error somnia finxit:* 1069 *perversa rem*

ratione: 1070 *quando omnia constant,* or with Lach. *ubi summa profundist:* 1072 *eam magis ob rem:* 1073 *repelli.* 1073 Lach. reads *alio* for *alia,* and proposes *meare* at end, and *malle putari* in 1072: he declines to prophesy in 1068 and 1069. 1071 Junt. most truly *neque omnino si iam medium sit* for *denique omnino si iam.* 1074: end is supplied in Ald. 1 and Junt. 1075 *debet* Wak. *oportet* older corr. 1076 *aeque* Junt. for *aequis* which Wak. absurdly defends. 1078 *in* added by Ald. 1 Junt. 1082 *concilio* Junt. for *concilium,* the *m* coming from *medii. concilium...vectae* Lach. which seems less poetical. *vinctae* Bentl.

1085 1086 are transposed in Junt. followed by all before Lach.: there is certainly an awkwardness at present: perhaps one is a subsequent addition by the poet; see above p. 22. 1091 *se ibi* Wak. Lach. for *sibi.* 1094—1101: A has faithfully left a blank space for these eight lost verses. They came at the beginning of p. 46 of the lost archetype; the eight mutilated lines above having headed the page on the other side of the leaf. Lach. therefore most justly concludes that this part of the leaf in the original of our mss. was by some accident torn away. Both the old ms. collations of A and B which I possess mention this lacuna: N. Heinsius says 'in A octo versuum hiatus erat relictus'. The less careful Is. Vossius, though the manuscript was his own, merely says 'vide ms. in quo hiatus post haec verba'. Think now of Havercamp, a Professor in the University where A and B then were, never noting this fact, but inserting the miserable makeshift verse of the Junt. *Terra det: at supra circum tegere omnia caelum;* stealing the critical note of the London bookseller's edition, and noting that this spurious verse was not in B, from which every reader must infer it was in A. I formerly made the following verses to shew the general sense of those which are lost: *Daedala sufficiat rerum natura creatrix, Scilicet incerto diversi errore vagantes Argumenta sibi prorsum pugnantia fingunt. Quae tamen omnia sunt falsa ratione recepta. Nam quoniam docui spatium sine fine modoque Inmensumque patere in cunctas undique partis, Sic parili ratione necessest suppeditetur Infinita etiam vis undique materiai, Ne cet.* 1105 *penetralia* Nic. Nicc. for *tonetralia;* rightly followed by all the old printed eds. (not by the mss.) before Lamb. who reads *tonitralia:* neither *tonetralia* nor *tonitralia* is Latin. 1108 *abeat* Ed. after Junt. for *abeant* wrongly adapted to the adjacent plural: com. VI 286: *omnis* agrees with *terra:* comp. VI 605 sqq. Lach. in 1106 reads *omnia,* as also II 719 without authority.

1114 *sei* Ed. after Nic. Nicc. Flor. 31 Camb. etc. for *sic:* a verse is here lost which I feel sure was of this kind, *Cetera iam poteris per te tute ipse videre,* with which the preceding words *parva perductus opella* must be joined. Lucr. says it is hard to master his principles, but when that is thoroughly done, then led on with little trouble you may learn the rest yourself. Comp. especially I 400—417, and see Camb. Journ. of phil. I p. 374. Lach. for *sic* reads *scio* and *perdoctus* for *perductus,* and then gets no satisfactory sense: Junt. reads *non* for *nec* in 1115: Lamb. *perfunctus* for *perdoctus:* Bern. *sis,* and *perdoctus* after Lach.

BOOK II

5 and 6 rightly transposed by Avancius. 9 *nonne videre* A B Gott. which Gif., followed tacitly by Lamb. ed. 3, has most properly retained. *videre est* was the common reading, which Lach. shews Lucr. could not have written. '*videtis* Marull.' says Gif. But Junt. has *videre est*, Ald. 1 *videtis*, and this is mentioned as a var. lec. at end of Junt.: so also Lamb. ed. 1, but *videre est* ed. 2. 17 *quoi* Gif. *cui* Avanc. for *qui*. 18 *mente. menti'* Lach. without cause. 19 *semotu'* Lamb. in notes Gif. Bentl. for *semota*. 21 *cumque. quemque* Junt. Lamb. etc. perhaps rightly: or ? *cuique:* but see notes 2. 27 *fulget auroque. fulgenti* Lach. But comp. v 1049 *sciret animoque*, where Lachmann's *scirent* perverts the meaning. *fulgens, renidens* Macrob. Saturn. vi 2 Avanc. Junt. etc. *fulgens renidet*, P. Crinitus de hon. disc. xvii 6. 28 *citharae. citharam* Macrob. saturn. vi 2, *cithara*, id. vi 4. 28 *aurataque. ornataque* Lach. *arquataque* Bern. *tecta* Lach. for *templa*, and so Macrob. saturn vi 4, but vi 2 *tempe*, which comes perhaps from the preceding passage of Virgil. Yet the *templa* of the mss. of Lucr. may have a technical meaning. 36 *Iacteris. Iactaris* Lamb. ed. 2 and 3: but see notes 2. 40—46: this passage I think I have arranged much better than Lach. or Bern: 42 *et ecum vi* (*etecūvi*) Ed. for *epicuri:* comp. *tariter* of mss. for *pariter* in 43. 43 *Ornatasq. armis statuas pariterque* Ed. for *Ornatas armis itastuas* (*itasiuas* B Gott.) *tariterque*. *Fervere cum videas classem lateque videri*, which is not found in our mss. but is quoted by Nonius p. 503 from Lucretius lib. ii, is clearly in its right place after 46, not 43, where Lach. and others have put it. I have also put a stop after *pavide* in 44. For *statuas* corrupted into *itastuas* comp. Lach. to iv 283, and *itastuam* for *statuam* in Orelli's inscript. 1120. Because Lucr. v 1227 has *Induperatorem classis super aequora verrit Cum validis pariter legionibus atque elephantis*, Lach. says 'apparet haec ita legenda esse, *Subsidiis magnisque elephantis constabilitas, Ornatas armis, validas, pariterque animatas*.' The *apparet* is anything but clear to me. Bern. reads *hastatis* for *epicuri*, *pariter* for *itastuas*. See Lach. on the way these two verses are written in A B. Nic. Nicc. omits them: later mss. Flor. 31. Camb. etc. treat them as a heading: the old eds. to Ald 1 and Pius inclusive have them variously corrupted. Junt. first omits them in text with this note at end, '*Subsidiis magnis Epicuri constabilatas*. Marullus carmen hoc expungit. Nam illud, *ornatas armis statuas, stanteisque animatas*, procul dubio subditicium est.' All subsequent eds. before Lach. omitted them, except Gif. who mixes up a portion of them with a part of the line from Nonius in this fashion, *Fervere cum videas; classem lateque vagari, Ornatamque armis belli simulacra cientem*. Lamb. ed. 3 first gives the l. from Nonius in full. 46 *pectus* Lamb. for *tempus:* a necessary change. 53 Ald. 1 Junt. Lamb. etc. *omne sit hoc rationis egestas*, without cause. 56 *sic*, as in iii 88 vi 36. *ita* Senec. epist. 110, shewing what little reliance can be placed on such citations. Comp. i 66.

85 *nam cum (quom) cita* Wak. for *nam cita*. *cita superne* Nic. Nicc. *concita saepe* Flor. 31 Camb. 86 *conflixere* Lamb. in notes for *conflexere*. *confluxere* Nic. Nicc. etc. *cum flixere* Lamb. *ut* Avanc. for *uti*. *ita uti* Flor. 31 Camb. etc. 88 *tergo ibus* Is. Vossius in ms. notes (not Preiger) most rightly for *tergibus*. 95 *nulla* Nic. Nicc. for *multa*. *invita* Is. Vossius in ms. notes. 98 *confulta* mss. and so Avanc. Pius Naugerius rightly. *consulta* Ver. Ven. Gif. *conflicta* 2 Vat. Junt. Lamb. ed. 1 and 2 Wak. Creech. *contusa* Lamb. ed. 3. *compulsa* N. Heins. in ms. notes. 105 must be spurious: some reader, with reference to the *cetera* of 104, wrote in the margin *cetera: Paucula quae porro magnum per inane vagantur*, on the model of 109 *Multaque* . . . . This *cetera* then usurped the place of the words at the beginning of 106, one of which must have been a relative to the antecedent *haec* of 107, the other an adversative particle. I therefore long ago replaced *cetera* by *sed quae*. Lachmann's text is utterly without logical sequence: he has no stop at *horum*, and a period at end of 105: nor have the older editions done better. 112 *memoro rei* Vat. 1706 Reg. ('olim Nicolai Hensii') Avanc. vulg. for *memoror rei*. 118 *proelia pugnas*: so IV. 1009. *proelia pugnasque* Camb. Junt. wrongly. 125 *magis haec*. 'Marull. contra v. l. scripserat, *huc*' Gif.; but both Ald. 1 and Junt. have *mage ad hoc*: see above p. 8. 137 *Ipsaque proporro* Turneb. advers. v 27 Lach. for *Ipsaque porro*. *Ipsaque quae* Camb. vulg. *Ictaque quae* Flor. 31.

152 *quasi dum diverberet*. *quasi* for *quosi* Pontanus, says Lamb. *quod sol diverberat* Nic. Nicc. Flor. 31 Camb. vulgo Lamb. ed. 1. *quasi tum diverberet* Lamb. ed. 2, *quasi dum diverberat* ed. 3, 'pessime' says Lach.: 'nam *dum* intellegendum est *donec*.' But in my opinion, though the subj. is quite right, Lamb. well defends the indic. which is also tenable. 158 *remoratur* Ald. 1 Junt. for *remoravit*. 159 *ipsa, suis e partibus una, Unum* Ed. for *ipsa suis e partibus unum Unum*. The contrast with 153—156 shews this to be necessary: comp. also I 599 etc. The repetition of *unum unum* has here no force whatever. 160 *conixa*. *conexa* mss. *connixa* Ver. Ven. followed by Nauger. and vulgo, not by Avanc. or Junt. It should be *conixa*.

165—183 Lach. has most justly marked off from the context, as interrupting the argument, though indisputably written by Lucretius. Some verses too have clearly been lost before 165. Bern. puts 167 before 165, and in 166 reads *persectati*, and supposes no lacuna. 168 *numine credunt* Ed. for *numine reddi*: the *e* of *numine* has absorbed the *c*, and *redunt* in mss. much resembles *reddi*. *rentur* Junt. and vulgo 'prorsus egregie' says Lach. Wak. absurdly defends *reddi*. 169 has been much tampered with in the vulg. eds. without any reason. 181 *tanta stat praedita* Lach., as in the repetition v 199, for *quamquam predita*. *quae tanta est praedita* Junt. and vulgo, which may be right. Wak. adopts the interpolation of Nic. Nicc. *quamquam haec sint praedita*, and gives a ludicrous explanation of it.

193 *subigente* Lamb. Creech. Lach. for *subiecta*. *subeunte* Bern. which is hardly so near the ms. reading. 194 *Quod genus e nostro*. *Quod genus est* Lach. justly blamed by Madvig Lat. gram. ed. 3 p. IX for the way in which he deals with *quod genus* here and in other places.

quom Nic. Nicc. *com* A Lach. *cum* B. 197 *ursimus*. *urgimus* A corr. Nic. Nicc. Camb. *alte* Flor. 31 for *altu*. 198 *deiecta* Lach. for *derecta*. 199 *revomit* Nauger. for *removet*. 203 *debent flammae quoque* Ald. 1 Junt. for *q. d. fl.* 205 *in se est deorsum deducere* Ald. 1 Junt. for *inest deorsum ducere*. *in se est* Flor. 31 Camb. also. *quantum est in se deorsum ducere* Lach: this I found also in one Vat. ms. 210 *caeli* Bern. better than *summo* or *aetherio* of older editors: *caeli* I had myself restored from Cic. Arat. 297 *summo caeli de vertice tranans*.

214 *abrupti*. *abruptis* Macr. sat. VI 1 27. 218 *ferme* Flor. 31 Camb. for *firme*. 219 *Incertisque loci spatiis decellere* Lach. for *Incertisque locis spatio depellere:* a brilliant emendation. Possibly Lucr. wrote *Incertoque loci spatio:* the corrupt *locis* causing the change to *incertis*. *spatio se pellere, decedere, secedere* of Avanc. Junt. Lamb. etc. have no meaning. 220 *momen*. *minimum* 2 Vat. and old eds. before Junt.

227 *plagas* B corr. and Lamb. for *plag*. *plagis* Nic. Nicc. followed by all before Lamb. without sense. 247 *se* before *est* added by Flor. 31 Camb. etc. 249 *recta regione*. *recta* added by Nic. Nicc. whom all before Lach. rightly followed: it was absorbed by the similar letters in *regione*. *nulla regione* Lach. 249 *Declinare quis est qui possit cernere sese:* this reading of all mss. and editions I now keep: the constr. is not harsher than others in Lucr.: see notes 2. *de se* Ed. in small ed. for *sese*, *sensus* Bern. *praestet* Lach. for *possit*.

252 *semper* added after *exoritur* by Nic. Nicc. Flor. 31 all editors before Lach. Camb. *exacto* added by Lach. before *exoritur:* obviously not right, as the new motion does not first begin when the other ceases. The reason of the omission was the *semper* of 251. 257 *potestas* Lach. for *voluptas:* a certain correction: comp. 286. Lamb. in vain transposes *voluptas* and *voluntas* of 258. Flor. 31 Camb. have *voluptas* in both places, but it can be right in neither. 264 *equorum* Brix. for *quorum*, not Nic. Nicc. Flor. 31 Camb. or Ver. Ven. 267 *conquiri* A corr. Gott. Nic. Nicc. vulg. for *conciri* of A p. m. B which Lach. keeps. Both must have been in the archetype. 268 *conixa* Gif. Lach. for *conexa*, as in 160. *conexa* is absurd, though in nearly all eds. before Lach. Lamb. says some mss. have *connixa;* but that I doubt. 275 *perspicuum nobisst* AB for *perspicuumst nobis:* see Lach. for the strange frequency with which *st* is thus transposed in AB. 277 *extera*. *extima* vulgo wrongly; prob. from the *extrema* of Nic. Nicc. 278 279 *Pellat...rapi* Avanc. rightly for *Pallat...rapit*. *Pellit...cogit...rapit* Junt. and vulg. before Wak. *Fallat* A corr. Nic. Nicc. Flor. 31 Camb. all Vat.: Lach. wrongly gives *Fallit* to Marullus; for Junt. has *Pellit*. 291 *quasi* Nic. Nicc. for *quaei*. *hoc* add. by Ed. *id* Lach.

294 *fuit umquam* Junt. for *fultum quam*. 301 *vique valebunt*. *inque valebunt* Ald. 1 Junt. vulg. 'vix latine' says Lach. 305 *extra* added by Ed. after *quicquam est*, in which it was absorbed: the sentence requires this: comp. V 361 and I 963, and Camb. Journ. of phil. I p. 375. Lach. adds *seorsum* at end of verse. *neque rursus in omnes* Flor. 31 Camb. *neque rursus in omne* Ald. 1 Junt. vulg.

313 *ipsa* Gif. for *ipsum*. 314 *surpere* Junt. for *asurpere*. 322 *vel ut in* Lach. rightly for *veluti in* of all mss. and eds.: mss. seem to have

a tendency to this blunder: 780 *uti in* for *ut in;* above in 86 *fit uti* for *fit ut.* Virg. Aen. IV 402 *veluti ingentem* M a c. *velut* P γ b rightly; VI 708 *veluti in* FGM *velut in* P etc. ap. Ribbeck. *uti* is never found before a vowel. See also 536 and Lach. there. 325 *ibi* Ald. 1 Junt. for *ubi.* 330 *tramittunt* A, *transmittunt* B. 331 *unde* added by Nic. Nicc. and all mss. and eds. 337 *constant* Nic. Nicc. Flor. 31 Camb. vulg. Lamb. for *constat:* 694 *constant* B Nic. Nicc. (?) Camb. vulg.: 724 *constent* AB vulg.: in all 3 places *constent* Lach.; but I believe the indic. to be right, and the subj. to have come from the adjacent verbs. Thus in VI 74 75 *constitues* and *adibis* must be right.

342 *Praestat rem* Ed. for *praetere. Praeterea* has here no sense. *Parturiunt* Lach. which I dont understand. *Praeterea* and 347 *Horum* for *Quorum* Junt. vulgo. 347 *quidvis* Lach. for *quodvis,* as IV 126. 356 *Noscit* Lach. for *Nonquit* A Flor. 31 Camb. etc. *Non quid* Nic. Nicc. *Oinquit* B, *Oinquid* Gott. *Linquit* B corr. Ald. 1 Junt. vulgo, without sense. 359 *absistens* Ed. for *adsittens. adsidueis* Lach. which is very weak. *adsistens* B corr. Nic. Nicc. vulg. 361 *vigentes. virentes* Macrob. sat. VI 2. 362 *illa* AB Gott. *ulla* Macrob. l.l. 'B corr.' says Lach. A corr. as I and N. Heins. have noted, Camb. vulgo. 363 *sumptam* Ed. for *subitam,* which Wak. unsuccessfully defends. Yet not only our mss. but Macrob. sat. VI 2 so reads: Macrob. has also *ulla;* and Nonius *praeterea* in 342: yet none of these readings can well be right. *solitam* Lach.; but the care here is quite *insolita.* 365 *curaque. curamque* A corr. Nic. Nicc. Flor. 31 Camb. Vat. 369 *Balantum* A Gott. Nic. Nicc. etc. *Balatum* B Flor. 31 Camb. etc. 372 *quique* Lach. for *quidque.* 376 *pavit* mss. rightly. *lavit* Nonius Ald. 1 Junt. Lamb. in text, but in notes he prefers *pavit.* 381 *est tali* Lach. for *est animi. est parili* Bern. not so well: the *t* of *tali* was absorbed in *est. est iam animi* Lamb.; but *animi* is out of place.

383 *fuat* Faber and Bentl. for *fluat.* 387 *ortus. ortu* Lach.: comp. VI 909 *fit ortus,* and 1141. 401 'Oratio lenius decurret, si scribemus *pertorqueat.* sed potest ferri *pertorquent*' Lach. 413 *Mobilibus* Ang. Politian in marg. Flor. 29 and Nauger. for *nobilibus.* 421 *diri turpesque* Lach. for *di turpesque. fedi turpesque, qui olidi t., tetri t., turpes olidique* have all been read. *caeli turpesque* Nic. Nicc. and oldest eds. 422 *figura* Lach. after Schneidewin Phil. III p. 538 for *videntur* which has come from 421 and supplanted the feminine substantive. *quae mulcet causa iuvatque* Junt. *quae mulcet cunque iuvatque* Avanc. without sense; but at end of his ed. of Catullus he bids us read *quae mulcet causa iuvatque.* 423 *levore* Avanc. for *leviore.* 427 *unca. uncaque* mss. 428 *et quae* added by Flor. 31 Camb. vulgo, *quaeque* Lach. *unde* Bern. *quique,* i.e. *angelli,* is right: the *que* at end of 427 belonging here. Then 429 *possint* A Nic. Nicc. Flor. 31 Camb., and (as I learn from Lach. p. 298) cod. Sangallens. schol. in Iuvenalem; rightly, as the subj. is necessary. *possunt* B Gott. vulg. Lach. 430 *inulaeque* Lamb. first for *inviaeque. vinique* Nic. Nicc. etc. 437 *egrediens* Flor. 31 Camb. etc. for *grediens.* 438 *aut.* Lach. seems to me wrong in changing this to *atque.* 439 *que* added by Junt. vulgo.

451 *e* Lach. for *ex,* as our mss. elsewhere have *e* before *l.* 453 Lamb. justly ejects: it is quite out of place. Does it refer to poppy

seeds, or poppy juice? in the former case it is untrue; in the latter unmeaning. Lach. retains it, and for *quod* reads *quasi* after M. Haupt. 455 *procursus* Junt. for *perculsus.* 456—463: a passage variously emended: the changes I have made are slight and I think not improbable. 458 *omnibu'* Lamb. after Muretus for *omnia:* comp. IV 82 where I read *Moenibu'* for *Moenia.* *omnino sunt levibus* Junt. perceiving *omnia* to be wrong. 460 *laxa* Ed. for *saxa* which cannot be right. *sese* Lach. 462 *sic latum* Ed. for *sedatum.* Lach. reads 461 *venenumst* for *videmus,* and 462 *sed rarum* for *sedatum,* making two changes. *Ventis esse datum* Bern. strangely for *Sensibus sedatum.* *Sentibus esse datum* Faber conjectures; but he thinks with Lamb. that 461—463 are spurious 461 *quod quisque* Junt. vulgo for *quodcumque,* wrongly joining this clause with the preceding. 465 *habeto* Ed. for *debet.* *habebis* Lach.: but he thinks *debet* may be right and a verse be lost, and this Bern. assumes. *est minime mirabile habendum* 3 Vat. Ald. 1 Junt. 'Marullus' says Gif. *cuiquam* Gif. 'Ita v. l.' i.e. Ver. Ven. he having the latter before him with Marullus' ms. emendations. Brix. omits the word. 466 *fluvidus est.* *fluvidum est* Ver. Ven. followed by all eds. before Lach. though the metre is thereby grossly violated. 467 *Est e levibus atque rutundi admixta doloris Corpora* mss.: some of these words it is plain have come from 466 and replaced the words of Lucr. *Est, et levibu' sunt aliunde* etc. Lach. But he adds 'quamquam sic quoque mirationem faciunt illa *doloris Corpora,* quae sunt pungentia sensus et laedentia': quite true. Bern. reads *Est, et squalida sunt illis* etc., and *squalida* indeed seems necessary. I have therefore written *Est, et squalida multa creant admixta doloris Corpora: doloris* being of course the accus. plur. 468 *necessumst* Lach. for *necessu.* 471 *Et quo* Junt. for *Et quod.* 471—477: by a better punctuation and by doubling one letter I have rectified this passage: 473 I have placed a stop after *secernendi,* and removed that which all former editors have put after *videndi,* and 477 have written *quom magis* for *quo magis.* Lach. puts 476 before 474 and then leaves a most involved sentence. 474 *dulcis.* *dulcit* Gif. not Lamb. Lamb. keeps *dulcis* ed. 1 and 2: he conjectures *acerbus* and reads *dulcet* ed. 3. 477 *possint.* *possunt* Lamb. vulgo.

483 *Nam quoniam eadem una cuiusvis in brevitate* Ed. for *Namque in eadem* etc. *Namque eadem unius* etc. Lach. *Namque in eadem una quoiusquoius* Lamb. See Camb. Journ. of phil. I p. 32. 499 *probari* Ald. 1 Junt. for *probare.* 501: I believe a verse is here lost of this nature *Et quos ostendunt in solis luce colores.* *tacta* Lach. after Oudendorp Lucan x 491 for *tecta.* *tincta* Junt. Vulg. 502 *ridenti* Fr. Medices for *rident* and 503 *novo* for *nova.* *Aurea, p. ridenti imitata* etc. Lach.: Lamb. and vulg. add *et* at end of 501. 503 *Saecla.* *Pepla* P. Burmann Wak. 504 *Et contemptus odor* Flor. 31 Camb. Brix. Ven. vulg. for *Et contemptus udor.* *Et contemptus suodor* Nic. Nicc. Ver.: hence I infer the ms. of Poggio had *sudor*. 512 *sed* added by Lach. *quin* Wak. 514 *finitis* Politian (?), Ald. 1 Junt. for *infinitis.* 515 *iter usque* Lach. for *hiemisque.* 517 *Extima enim* Ed. for *Omnis enim.* *Ambit* Lach. *Finis* Junt. *Finit* Lamb. vulgo. 518 *Interutraque* Lach. for *Inter utrasque* of mss. here and in six other places, v 472 476 839 VI 362 1062, and III 306 where I read *Inter utrosque.* He compares it

with such adverbs as *antea postea interea praeterea* etc. acutely and plausibly: and yet it is passing strange that mss. should agree six or seven times in precisely the same corruption, the more so that *inter utramque* would seem a more natural change for them to make: they twice give the adverb *utrāque* right, and we never find *inter eas* for *interea* or the like: is it not possible that Lucr. really wrote *interutrasque*, whether as one or two words, on the analogy either of the adverbs *alias alteras* or of *foras?* 521 *infesta* Lach. for *infessa*, and so Lamb. in notes, *insessa* in text after Junt. *infensa* Flor. 31 (not Camb.) Vat. 1954 Othob. old eds.

522—568: this passage I have fully discussed in Cambr. Journ. of phil. IV. p. 143 etc. where I have shewn that Lach. is quite wrong in enclosing 522—528 in brackets, and beginning a new paragraph at 529, and there reading *Protinus* for *Versibus:* he gives us the alternative, which Bern. has adopted, of assuming one or more verses to have been lost before *Versibus;* and indeed all editors before him from Ald. 1 and Junt. downwards have inserted this line, *Quod quoniam docui, nunc suaviloquis age paucis.* No stop is to be put at the end of 528, and 529 *ostendens* is to be read for *ostendam;* and then all difficulty vanishes. 533 *minus* Lamb. most rightly for *magis* which Wak. absurdly tries to explain. 535 *genere* Junt. for *genera.* 536 *Sicut* Bentl. for *Sicuti:* III 816 mss. have the same error. Lachmann's note shews the strange tendency of mss. to read *sicuti* for *sicut*, as above *veluti* for *velut.* In the passage he quotes from Plautus mil. 727, it now appears from Ritschl that the Ambrosian palimpsest has rightly *sicut.* Cic. Arat. 131 on the other hand the latest editors after all their mss. read *Sicuti cum coeptant.* Cic. de senect. 14, though the same editors read the verse of Eunius *Sic ut fortis equus*, 5 of their 6 mss. have *Sicuti.* 541 *lubet* B corr. Flor. 31 Camb. for *iubet.* 543 *nulla* added by Lach. *non sit in orbi* B corr., *non sit in orbe* Nic. Nicc. Flor. 31 Camb. vulgo: perhaps rightly. 547 *summam hoc quoque uti* Ed. for the meaningless *sumant oculi:* comp. 541. *si manticuler* Lach. strangely. Wak. tells us that Bentl. obelised the words; and it is strange that all editors before Wak. even Junt. and Lamb. left them unnoticed. Wak. conj. *sumant ollei.* 553 *guberna* Lamb. for *caverna. carinas* Nic. Nicc. 555 *aplustra* Politian Junt. for *plaustra* A, *plaustra* B Nic. Nicc. Camb. 560 *si finita* B corr. Ver. Ven. for *si infinita.*

586 *quod cumque* Lach. for *quaecumque.* Previous editors have gone much astray. 593 (and 607) *Eximiis* Avanc. for *Ex imis.* 'Sic v. l. o...Marull. ex. Virg. lib. 5, *ex imis*, contra v. l.': the 'veteres libri omnes' are only the Ven. in which were Marullus' ms. notes. Ven. has *Eximis* which Gif. probably read *Eximiis.* Marullus perhaps referred to Aen. III 577 *fundoque exaestuat imo*, and divided the word.

601: Lach. with reason supposes a verse to be lost here, which he thus supplies, *Magnifice divam ex ipsis penetralibu' vectam Sedibus.* Lamb. reads *Sublimem* for *sedibus.* 605 *molliri* Nic. Nicc. Flor. 31 Camb. etc. for *moliri.* 613 *orbem* Junt. first for *orbes.* 615 *sint* Lamb. first for *sunt.* Lach. says nothing; but Ed. as well as N. Heins. in ms. notes and Goebel in Rh. Mus. n. f. XV p. 414 found *inventi sunt* in AB. *sint inventi* Lach. I prefer the rhythm of the ms. order. 623 *metu...nu-*

mini' divae Lach. at the suggestion of an 'amicus quidam' of Haverc. for *metu...numine divae.* 626 *iter omne viarum* Turnebus Gif. Lamb. ed 2 and 3, vulg. for *ite omnia virum:* a certain correction. *ite omnia mirum* Nic. Nicc. some Vatic. and old eds. *iter, omnia circum* Flor. 31 Camb. some Vatic. Junt. Lamb. ed. 1. 630 *quod armis* a certain correction of Lach.: the sentence requiring the conjunction *quod* or *quia*, the sense *armis. catervas* of mss. is a mere blunder of the scribe who has taken it from 628: a form of error common in our mss. comp. 422 I 555 VI 15 etc. *catenas* of B is again a mere miswriting of *cateruas,* though it has deceived many. 631 *sanguinolenti* Bentl. for *sanguine fleti. sanguine freti* Nic. Nicc. and old eds. *sanguine laeti* Junt. Lamb. etc. 632 *numine. momine* Lach. whom I followed in my small ed.: but see Ph. Wagner in Philologus supplement I p. 400 Conington to Aen. II 123 and Lachmann's own note: comp. also IV 179. 636 *Armat et in numerum pernice chorea:* first omitted by Lamb. as manifestly made up out of 635 and 637. 653 (656) *Constituit* Lach. for *Constituet,* as *mavolt* follows. 657 (680): this verse, which was the last of p. 73 of the archetype, has been transferred hither by Lach. The scribe omitted it in its place and then wrote it at the bottom of the page. *parcat* Lach. for *parato. parco* Flor. 31 Camb. etc. 658—660 (652—654) I have transferred hither. The *itaque* of 661 manifestly refers to them; so that if they are to keep their place, then (what comes to much the same thing) 652—657 must be enclosed in brackets as a subsequent marginal addition of the poet's: see above, p. 22.

665 *retinentque parentum* Flor. 31 (not Camb.) Vat. 1136 Othob. 1954 Othob. a.m. Ald. 1 Junt. for *retinente parenie.* 669 *quamvis... unam* Lamb. for *quamvis...una. quemvis...unā* Nic. Nicc. *quemvis... unum* Junt. 674 *condunt* Ed. for *traduntur. celant* Lach. *cludunt* Bern. 681 *privis* Lach. for *primis:* I have not changed another letter here; but have only amended the punctuation, by putting a full stop after *odore,* and none after *dona.* For position of *igitur* comp. 678 and 569 *itaque,* and notes 2 to I 419. Lach. reads *in privis pluraque dona,* and there ends the sentence. In consequence of 657 (680) having been misplaced the older editors have made strange confusion here. 683 684 *fucus...Fucus* Lach. most properly for *sucus...Sucus:* 'nam *fucus* color est.' 684 *sorsum* AB only once. '*seorsum et rerum* [Faber's text]. *et rerum* om. mss. vv. repetendum ut puto τὸ *sorsum* G. V.' ms. notes of Is. Vossius. Haverc. and through him Lach. misrepresent him. G. V. is of course his father Gerard, whose reading therefore is the same as Lachmann's. 685 *privis* for *primis* 'idem Vossius' says Lach. after Preiger or Haverc. who has 'egregie et hoc loco *privis* habet Marginalis noster.' My ms. notes of Vossius are without it. 693 *isdem* Lamb. for *idem:* 'quod est sane simplicissimum, sed videtur abhorrere ab usu Lucretii' says Lach. who reads awkwardly *nulli* for *nulla,* and *idem.* But here and V 349 Lucr. unquestionably used *isdem,* as did his contemporaries. 694 *constant* Ed. with B Nic. Nicc. (?) Camb. Lamb. vulg. *constent* Lach. with A corr.: see 337. 696 for *rerum* 'f. verum G.V.' in Isaac's ms. notes: and so Lach. yet *longe* of Flor. 31 Camb. etc. may be right, as the scribe might well write *primordia rerum* mechanically from the mere fact of these words continually coming together. 716

intus Lach. for *ints. inter* B corr. Camb. *intra* Nic. Nicc. etc.: *consentire* is here transitive. *in se* Bern. which I dont understand. 719 *Legibus his quaedam ratio disterminat omnis* mss. *omnia* Lach. after Junt. as in I 1106 without authority: *omnia* I doubt not comes from Marullus, as he uses it in the same way in his hymn to earth at the end of a passage partly quoted p. 8 in which Lucr. is closely imitated: see also reading of Junt. in 749. *hisce eadem r. d. omne* Bern. But *omne* is hardly thus used; therefore I read *hisce ea res r. d. omnis. quaedam* has no meaning. 721 *ita quanque* Junt. for *ita cumque.* 724 *constant* Ed. *constent* AB vulg. Lach.: see 337 and 694.

734 *Nive alium quemvis quae sunt inbuta colorem. colorem* Nic. Nicc. vulgo for *colore.* Lamb. and Lach. deny that *imbuta colorem* is Latin; but in my small edition I observed that *incocta ruboribus* is the common Latin construction; yet Virgil has said *Tyrios incocta rubores.* Lach. reads *Nive alium quemvis, quo sunt inbuta colore,* cet. But the nominative *quae* is absolutely required here. *induta* Lamb. for *inbuta.* 741 *lumina* Flor. 31 Camb. etc. for *numina.* 742 *Dispexere* Flor. 30 corr. Avanc. for *Despexere. Aspexere* Junt. Lamb. etc. 748 (743) transferred hither by Bentl. and Lach. 749 *in omnis* Flor. 31 Camb. Nauger. for *et omnis. in omnia* Junt. i. e. doubtless Marullus: see note to 719.

759 *omne genus* Lach. for *omnigenus. omnigenos* A corr. Nic. Nicc. Flor. 31 Camb. vulg. 760 *Propterea* Flor. 30 corr. Flor. 31 Camb. Junt. Lamb. ed. 1 for *Praeterea* which Wak. and, strange to say, Lamb. ed. 2 and 3 retain. 763 *extemplo* Brix. Lamb. for *exemplo.* 765 *possint* Lamb. for *possunt.* 779 *unaque figura* Nic. Nicc. Ver. Ven. for *unaque figuras. unaque figura est* Flor. 31 Camb. Junt. *unaeque figurae* Lamb. after Muretus 'contra consuetudinem Lucretii' says Lach. 788 *ut in* Lach. for *uti in:* see 322. 781 *in aequore* Ver. Ven. Politian (?) Junt. for *in aequora.* 785 *extra* seems quite appropriate; yet Lach. reads *ex his.*

788 *ducit et inlicit ut tribuamus* Lamb. and Turneb. for *ducit et inlicitu tribuamus.* (*et* om. A Nic. Nicc.) *ducit in licitum ut tribuamus* Camb. 790 *creantur* Nic. Nicc. Flor. 31 Camb. for *creatur.* 791 *Nec quae* Flor. 31 Camb. for *Neque. variis ex* Wak. for *variis ea.* 800 *refulget. refulgit* Lach. 803 *rubra* Flor. 31 Camb. Ver. Ven. for *rubro.* 805 *curalium* Wak. for *caeruleum.* 'fo. *beryllum*' Bentl. 806 *larga cum luce* B corr. Nic. Nicc. vulgo for *largo cum luce* which may be right. 809 *Scire licet. Scilicet id* Lamb. *est* om. Nic. Nicc. Brix. Ver. Ven. 814 *sint* Ald. 1 Junt. for *sunt.* 815 *opus esse colores* Lamb. after Nonius for *colore* of mss.: see Lach.

821 *Omne genus* Lach. for *Omnigenus,* as 759. *Omnigenis* Nic. Nicc. vulg. 829 *austrum. ostrum* Wak. conj. for *aurum:* but the right punctuation I owe to Goebel quaest. Lucr. crit. p. 14, though Ald. 1 and Junt. have a full stop after *aurum. aurea Purpura* and 831 *distracta* for *distractum* Lach. without judgment. *aurum* which previous editors retain has no sense. *usu* Bern. for *aurum.* 831 *dispergitur* Lach. for *disperditur.* 841 *notare* Lach. for *notaque.*

845 *ieiuna* Flor. 31 Camb. etc. for *et una.* 846 *proprium. proprio* Lach. with Junt. but compare 855. 850 *possis. potis es* Lamb. Lach.: see notes 2. 853 *contractans* Lach., and some mss. of Priscian VI 91 for

contractas. contactos vulg. *servare* (*superare* Forbig.) *et perdere* Nonius p. 188. 854 *Propter eandem rem* Lach. most truly for *Propter eandem. Propterea tandem* Flor. 31 Camb. *Propterea demum* Lamb. absurdly. 860 *Molli* Lamb. after Turnebus for *Mollia.* 875 *fluvii frondes* Lamb. for *fluvii in frondes.* 882 *in ignis* Flor. 31 Camb. etc. for *ignis.*

888 *gigni. nasci* Priscian IV 27: see above p. 1. 891 *rebus* Avanc. for *fedus. foedus* Wak. etc. absurdly. 893 *Sensile* Nic. Nicc. for *Sensilia. et extemplo* Nauger. for *etemplo.* 902 *ea* Lach. for *ex.* He also reads *seminibus* for *sensilibus*, and 903 *suëtis* with Lamb. for *suëti.* I keep *sensilibus*, and 903 read *suëta.* 904 *iam* Lach. properly for *cum. tum* Lamb. 905 *cuique* Ed. for *cumque. cuncta* Lach. 909 *simili* Lach. for *similis.* 910 *At* Junt. for *Aut.* 911 *alio* Lach. for *alios, respicit* for *respuit. Nam ratio* Bern. for *Namque alios*, retaining *respuit.* 915 (923). I follow Bern. in placing this verse here, rather than Lach. who makes it follow 916 (915). 919 *animalia sint* Lach. for *animalibus:* comp. 458 and IV 81. 920 *at coetu* Lach for *ab eoretu. ab coetu* Junt. *concretu* Politian in marg. Flor. 29. 921 *nequeant. nequeunt* Gif. Bent. Lach.: but the optative is in place. 926 *quo fugimus* Wak. for *quod fugimus* which. Lach. in vain defends. The poet refers to 870 sqq., not to 886. *quod vicimus* Ed. in small ed. 928 *offervere terram, Intempestivus quam putor cepit* A, *coepit* B. *effervere* Ital. Camb. etc. *Intempestivos cum*, but *coepit* Junt. Lamb. first stopped the passage right, and read *cepit;* but *putror* wrongly for *putor.*

932 *Posse a non sensu* Wak. for *Posse ea non sensu*, rather better perhaps than *Posse ex* of Lamb. Lach. etc. *sensum mutabilitate* Lamb. ed. 3 in note, Bern. for *sensus mut.* Lach. keeps *sensus.* 933 *quod proditus extet* Ed. for *quod proditum extra. quod protinus extent* Lach. *quod proditur extra* Bern.; but the oratio obliqua requires the subjunctive. 938 *ipsam* Flor. 31 Camb. Ald. 1 Junt. etc. for *lesam.* 940 *terraque creatis.* Wak. has properly retained this the reading of all mss. *flammaque creatis* Ald. 1 Junt. vulg. before Wak. *aethraque creatis* Lach. But I do not know what *aethra creata* are, unless they be the same as *terra creata*, the various products of the earth. 941 *convenienti* Lamb. for *convenientes* which Lach. retains: the termination of 942 has caused the mistake. 943 *animante in quaque cientur* Hugo Purmann in Jahn's Jahrb. f. Philol. B. 67 p. 673 for *animantem quamque tuentur. animantum concuterentur* Lach. 941 Bern. reads *omnicientes* and 943 keeps the ms. reading: *tuentur* is quite foreign to the sense of the passage, else Lucr. would not avoid using *omnituentes* and *tuentur* together.

961 *conlecta* Lamb. first for *coniecta* which Wak. absurdly retains. *possit* Lach. for *possint:* as the verb cannot refer to *sensus* or anything but *quamvis animantem* in 944. 963 *Praeterea. propterea* Lach. perversely: see notes 2. A new paragraph begins here.

975 *de quibu' factumst* Lamb. for *de quibus auctumst*, and 986 *non ex ridentibu' factus* for *non ex ridentibus auctus.* Nonius p. 511 has *de quibus actus.* Lamb. ed. 3 adds most truly 'Primum Latine dici non potest *auctus de re* aut *ex re aliqua*, sed *auctus re aliqua* [speaking of course of the atoms of which a thing is made. V 322 *quodcumque alias ex se res auget alitque*, and the like have nothing to do with the question]. nam *auctus* casum septimum sine praepositione postulat.

deinde aliud est *auctus re aliqua*, aliud *factus de re* aut *ex re aliqua*. hoc qui nescit, fateatur se hospitem esse in lingua Latina': this he doubtless intended for Gifanius. Wak. more fearless than the angels keeps of course *auctum* and thus comments, 'editores *aptum* [most *factum*] ausi scilicet, libris omnibus religionem invocantibus contra profanos emendatores, dictionem Lucretio lubentissime frequentatam contextu emovere, et fetus proprios per audaciam odiosissimam atque perditissimam infercire. ὡς ἀργαλέον πρᾶγμ' ἐστίν, ὦ Ζεῦ καὶ θεοί.' Truly *delira haec furiosaque cernimus esse Et ridere potest non ex ridentibu' factus*. 985 *delira* Flor. 31 Camb. etc. for *det ira*. 1001 *rellatum*. *fulgentia* Lactant. inst. VII 12. 1002 *mors res, ut* Ald. 1 Junt. for *mors ut res*. 1004 *coniungit; et effit ut* Ed. for *coniungit et efficit*. *coniungitur et fit* Lach. who has a full stop at *ollis*. Ald. 1 Junt. vulg. have *ut* for *ita* in 1003: as no editor before Wak. would tolerate the omission of *ut*: yet it is a strange thing that our mss. so often omit *ut* after *efficere* and *fieri*, if the omission is not the poet's own. 1010—1012 Lach. and Bern. with all previous editors have quite misunderstood this passage in which not a letter is to be changed: they all take *quod* to be the conjunction; it is really the relative. Lach. for *summis* unskilfully reads *cunctis*, and supposes 1013 to commence a new paragraph wholly unconnected with what precedes: he encloses in [ ] 1013—1104. The truth is 1013—1022 are closely united with what precedes if rightly understood. Junt. Lamb. ed. 1 vulg. have *parum* for *penes* in 1010. Lamb. ed. 3 has a long note shewing that his conception of the passage is no less confused than Lachmann's. The small word *quod* has given rise to these strange misapprehensions. 1015 1016 = I 820 821 with the exception of *Significant* for *Constituunt*: 1020 = 726 and V 438 (441). Lach. has rightly seen that they are here quite out of place: in the first book they are properly said of the atoms, but here they interrupt the sense. 1020 the interpolator has transferred hither without taking the trouble of changing *vias* and *plagas* to *viae* and *plagae*, which is first done in Ald. 1 and Junt. 1017 *sunt* Lach. for *sint*: he compares 458.

1023 *adhibe veram* B corr. Ver. Ven. for *adhibueram*. 1024 *vementer* Avanc. and Lach. rightly for *vehementer*: so *vemens* which occurs several times: in fact those were the only forms known to Lucr. and all writers of the best ages: see Lach. 1025 *Accĕdere* all mss. and old eds.: this old form I have retained here and V 609 where A has *Accedere*, Nic. Nicc. *Accendere*: see Vahlen's Varron. sat. Menipp. p. 95, and his Ennian. trag. rel. 114 and 281, where the best mss. of Ennius and Varro retain the same form *accĕdo*: it appears from Ribbeck that the mss. of Virgil preserve in many similar words *e for i*, but his judgment in adopting them seems often at fault. *peremo interemo neglego intellego* were the only forms admitted in the best ages, as the concurrent testimony of all good mss. proves. 1029 *minuant mirarier*. *mittant mirarier* Lach. which I adopted in the small ed. 1030 *Suspicito* Bern. for *Principio*. *Percipito* Lach. which can hardly be right: indeed *Principio* is so appropriate that I incline to think a verse is lost, such as this *Cuius, uti memoro, permulta exempla videmus: Principio* 'chief of all.' Lamb. in 1029 has *Principio quod non m. m. o. Paulatim, caeli* cet. on no authority, though he appeals to 'veteres libri.' 1031 *cohibet* Lach.

for *cohibent:* he justly wonders no one before him saw this. *quemque* .. *cohibent* previous editors. 1033 *essent*. *extent* Orelli Lach. *adsint* Junt. Lamb. etc.: the imperfect seems necessary; I therefore in 1034 read *si nunc* for *si sint:* the *si* was written twice; hence the error. *extent* .. *Ex inproviso visu subiecta* Bern. 1047 *iactus* I. F. Gronov. Bentl. for *tactus*. *iniectus* Junt. which gives the right sense. *libero quo pervolet ipse* B, *volet* A. *liber quo pervolet ire* Lamb.

1049 *supra supterque* Lach. rightly for *superque*. *superque infraque* Politian in marg. Flor. 29. *infra supraque* Ald. 1 Junt. Lamb. vulg. 1061 *coluerint*. *cooluerint* Lamb. for *colerunt*. Lach. inserts an *ut* before *semina* in 1059, and reads *coluerunt* here. *colarunt* Nic. Nicc. 3 Vat. Junt. *coierunt* B corr. Flor. 31 Camb. 1 Vat. 1061 *coniecta* of all mss. seems to me quite right: comp. 1108. *convecta* Lach. which appears to be the right reading in the nearly identical passage v 429 where the mss. have *conventa*. Lach. objects to *coniecta* 'quasi Lucretius hic aliter quam in quinto dicere potuerit': but there he has also *conveniant*, here *coluerint*, there *saepe*, here *semper;* for Lach. vainly alters *saepe* to *semper:* he also says of *coniecta* 'sententiam non explet nisi addita loci significatione, ut paulo post *Conicere in loca quaeque*' cet: but I 284 *Fragmina coniciens silvarum arbustaque tota*, we find it used absolutely. 1062 *exordia* Ald. 1 Junt. for *ex ordine*, as in the 5th book.

1070 *et*. *ex* Lach. but *et* is clearly right: *ex* makes the construction most awkward: then 1072 *Visque eadem et natura* Ald. 1 Junt. for *Vis eadem natura*. *Quis eadem natura* Lach. 1079 *aliquoiu' siet* Gronov. for *aliquoiuis siet* B, *alioquoiuis* A: the older editors have gone widely astray. 1080 *inclute Memmi* Gronov. for *indice mente*. 1081 *Invenies* Ald. 1 Junt. for *Invenisse*. 1082 *genitam* Ald. 1 Junt. for *geminam*. 1089 *quod his generatim rebus abundans* mss. *est* Lach. for *his*. *hic... abundat* Bern. *hic generatimst rebus abundans* Ed. 1094 mss. giving *vltam* for *vitam* have caused Junt. Wak. etc. to err strangely: simple as it is, Avanc. first saw the truth. 1102 *in* added by Lactan. inst. III 17 Flor. 31 Ver. Ven. etc.

1110 *Appareret* Nic. Nicc. Camb. for *apparirет*. Politian in marg. Flor. 29 says 'in vetusto *Appareret:*' was this the ms. of Poggio? in 716 to *infra* he has in marg. 'P *inter*,' with dots added, is P Poggio? AB there have *inte*. 1115 *aether* added by Flor. 31 Camb. etc. *aëraque aër* Lach. but see notes 2. 1116 *extremam...finem* Lach. rightly for *extremum...finem*, as this is the only place where the mss. make *finis* masc. *perfica* AB Nonius. *perfice* A corr. Nic. Nicc. Flor. 31 Camb. etc. 1120 *hic* Ed. for *his*, as in 1089. *his rebus* here has no more sense than there. 1122 *hilar...adauctu* AB. *hilari* Avanc. *hilaro* more rightly Lamb. 1126 *dispessa* Ed. for *dispersa:* comp. III 988 *dispessis membris*. *dispersa* has here no sense: a full-grown man is more *dispessus*, but not more *dispersus* than a child. *dispessa* is the same as the *res amplior et latior* of 1133. 1135 *ab se* Lach. for *a se*, Lucr. as a rule using *ab* before *s:* but I have my doubts here: see Lach. to VI 925: Lucr. may have varied his usage. 1136 *diditur* Ald. Junt. for *deditur*. 1138 *queat* Junt. for *queant*. 1139—1142 (1146—1149): Goebel quaest. Lucr. crit. p. 33 has first seen that these verses are to come after 1138: the thing admits of no question: though it has escaped all the editors and Lach. 1140

(1147) *cibus* added by Is. Vossius in ms. notes. Faber omits the verse. Voss. inserts 'et fulcire cibus, cibus omnia sustentare;' and adds in marg. 'sic Ms. v.'

1153 *opinor enim mortalia* Junt. for *opinore immortalia.* 1165 *manuum* Is. Voss. in ms. notes for *magnum.* 1166 Junt. reads *Et cum temporibus praesentia tempora*, and so Politian in marg. Flor. 29: see above p. 7 and also note on the interpolated v. after I 15: it is to be noticed that here too Naugerius in Ald. 2, as there, does not follow Junt. and Politian, but recurs to the true ms. order of the words. 1168—1170 (1170—1172) Theod. Bergk in Jahn's Jahrb. vol. 67 p. 319 has rightly transferred to this place. 1171 (1168) mss. have at the end *fatigat*, taken from 1172 by a common blunder, for which N. Heins. in ms. notes excellently reads *vietae:* he says 'leg. *vietae.* Horat.' [Epod. XII 7]. 'vel *effaetae vitis sator atque vietae* p. 85' [i. e. III 385] 'viĕtae...atque senectae p. 97' [i. e. III 772]. 1172 (1169) *momen* Pius in notes for *nomen.* *caelum* Wak. for *saeclum.* Pius, having of course *fatigat* in 1171, suggests ingeniously *saeclumque fatiscens.* Nic. Nicc. all Flor. Vat. Camb. old eds. omit this verse: I dont know whence Avanc. got it: Pius of course had it from him. 1174 '*Ad scopulum.* Sic oblongus: quadratus *Ad copulum*, sed *s* littera ab ipso librario addita. de his Havercampus falsa refert: sed idem verissime et praeter morem suum ingeniose scribit *ire Ad capulum*' Lach.: Wak. also says of it, 'quae est Havercampi ingeniosissima ac dignissima pretii quantivis emendatio': but alas it is not Havercamp's, as may be seen from his own crit. note: it is due to Is. Vossius, who says in ms. notes 'ms. ut hic, al. ms. '*copulum*' and again '*copulum* v. lege *capulum* i. e. sepulturam.' The two mss. are AB, then in his own library: Nic. Nicc. all Flor. Vat. and Camb. etc. read *scopulum* with A.

BOOK III

1 *E* Brix. Ver. Ven. for *O* of A Vien. frag. om. B Nic. Nicc. *A* Flor. 31 Camb. etc. 11 *libant* Avanc. Nauger. (not Junt.) Gif. Lach. for *limant.* 15 *coorta* Orelli Lach. for *coortam.* 21 *semperque* Flor. 30 corr. Flor. 31 Camb. Vat. 1136 and 1954 Othob. Junt. Lamb. Lach. for *semper.* *semper sine nubibus* Ald. 1, because Ver., and Ven. on which it is founded, have *in nubibus* with 3 Vat. 22 *ridet* Lach. for *ridet.* 28 *ibi* Gronov. Wak. for *ubi.* *tibi* Junt. 29 *sic natura* Avanc. for *signatura.*

33 *aeterno* Bentl. for *alterno.* 44 (46) first placed here by Bentl. 58 *eiciuntur* Lamb. ed. 2 and 3, Gif. Lach. justly for *eliciuntur:* the two words being perpetually confounded, though *eliciuntur* is perhaps defensible here. Lach. is wrong however in saying that Lamb. 'tandem veritati concedens' adopted *eiciuntur* from Gif. without acknowledgment: in his first ed. he keeps *eliciuntur* in the text, but has the same note as in ed. 3: 'existimant quidam legendum *eiiciuntur*...et ita amicus meus putat legendum in oratione pro M. Caelio, *nonne ipsam*

domum metuet, nequam vocem eiiciat, ubi vulgo legitur *eliciat?* cui propemodum nunc assentior, quamvis olim dissenserim' cet. Lamb. angry though he was, was too true a scholar to treat Gif. as Gif. treated him. Nor does what he here says of his friend Muretus call for the petty malignity with which the latter speaks of him after his death in his var. lect. II 17. *manet res* Flor. 31 Camb. etc. for *manare*. 65 *ferme. famae* Ald. 1 Junt. from *formae* of Brix. Ver. Ven. *fama et* Lamb. 66 *videntur* Lamb. for *videtur*, as *semota* is neut. plur. according to the usage of Lucr.: but it is with much doubt and hesitation and in deference only to two such scholars as Lamb. and Lach. that I refuse to allow to Lucr. the liberty which the purest writers seem to have claimed, of making the partic. and verb refer only to the last of two or more nominatives. 72 *fratris* Macrob. sat. VI 2 15, Junt. for *fratres*. 78 *statuarum* Flor. 31 Camb. corr. Vat. 1954 Othob. Junt. for *statum*. 81 *consciscant* Nic. Nicc. etc. for *coniciscant*. 84 *fundo* Lamb. excellently for *suadet*. *fraude* Lach. *clade* Bern. But *fundo* is nearer the ductus litterarum than either of these readings, and makes far better sense: comp. Virg. in notes 2. *suadet* is hardly tenable.

94 *quam* Charisius p. 187 (210) for *quem:* so Junt. Lamb. Lach. 95 *locatum* Ald. 1 Junt. for *vocatum*. 98: before this verse one or more have been lost. Ald. 1 thus supplies it, *Quamvis multa quidem sapientum turba putaret:* Junt. and eds. in general before Lach. have the same, but for *putaret* more correctly *putarunt*. Gif. has *putarit*, and this note, 'Ita v. q. l. [vetus quidam liber]. in al. *putaret*. al. *putarūt*.' It is not improbable the v. q. l. is the Ven. with Marullus' ms. notes: it is very possible too that *putaret* in Ald. 1 is a misprint for *putarit:* see what I say above p. 9 on the heavy charge brought against Avancius by Lach. here. 106 *aegret* Lach. from 'grammaticus Vindobonensis Eichenfeldii' who quotes the verse on account of the word *aegret*. *aegrum* Mss. *aegrit* Lamb. ed. 3. 108 *fit uti* Lamb. for *fit ubi*. 'Itali *fit uti*' says Lach. What Itali? not Nic. Nicc. nor Flor. 31 Camb. eds. Ver. Ven. Ald. 1 Pius Junt. Ald. 2: all of which I have now before me except Nic. Nicc. and Flor. 31, and of these two I have a collation of my own. 118 *corpus senteire* Lach. from a conj. of Wak. for *corpus interire*. *harmoniam corpus retinere* Ald. 1 Junt. 132 is first rightly given by Is. Voss. in ms. notes, by simply reading *alto* for *altu* of AB. A corr. Nic. Nicc. and all late mss. read *ab organico* and *salto* or *saltu* or *sacro:* hence endless confusion. *ab organico saltu... Heliconis* is the old vulgate.

145 *sapit, id sibi* Wak. for *sapit sibi*. *sapit et sibi* Nic. Nicc. Flor. 31 Camb. vulg. 154 *ita palloremque* Nic. Nicc. etc. for *itaque pallorem*. *itaque et pallorem* Lamb. etc. 159 *animi vi* Ven. first for *animi*. Lach. is wrong; Flor. 31 reads *animai*. Ver. om. *vi* with AB Nic. Nicc. *animi vis* Nonius Brix.

170 *teli* Junt. most truly for *leti*. 172 *terraeque petitus Segnis* Ed. for *t. p. Suavis*, because I can think of nothing better: *suavis* manifestly has no sense. *Suppus* Lach. But why *suppus* rather than *pronus?* a man is generally wounded in front and then, as Lucr. says IV 1049, he falls forwards not backwards. *Saevus et* Bern. after a friend of Wak. Mr John Jones: but the copula *et* is never found in Lucr. out

of its place, and a single example must not be introduced by conjecture. Perhaps *Suevit* i.e. insequi: comp. v 36 *adit...audet* i.e. adire.

183 *sibi* Wak. rightly for *si*. 198 *spicarumque* mss. Bern. has seen that in the letters MQUE the verb MOUERE lurks: in 236 mss. *multamqueri* for *multa moveri*. He reads *cauru' movere:* but whence comes the *spi:* I have therefore written *ipse euru' movere*. *spiritus acer* Lach. But the sentence requires a verb. The *spiclorum* and the like of the older editors are absurd. *conlectum* Muretus for *coniectum* which Lamb. approves of in his notes and Lach. rightly adopts. 203 *est* added after *quoniam* by Ald. 1 Junt. It is added at the end of the verse by Flor. 31 Camb. 210 *si* for *se* Nic. Nicc. Ver. Ven. not Flor. 31 or Camb. 224 *Nil oculis*. 'leg. *nilo*' Heins. in ms. notes. 227 *rerum*. *rei* Lach. I now think without reason.

234 *cui non sit mixtus et aer*. *cui mixtus non siet aer* Lach. who, as has been already said, will not tolerate *et* for *etiam*. 236 *multa moveri* A corr. Nic. Nicc. and all before Lamb. for *multamqueri:* comp. 183. *multa cieri* Lamb. wrongly after Turnebus. 239 240 a most doubtful passage: 239 *res* Ed. after Bern. for *mens*, 240 it seems to me certain that *quaedam* has come here from the *quaedam* of 241, and as what the poet wrote must be uncertain, I have written *et homo quae* for *quaedam quae*. Lach. 239 reads *quem* for *mens*, 240 *quaedam vis menti*, just retaining the word he ought not and making a most awkward construction. Bern. strangely reads in 240 *quidam quod manticulatur*. Is. Voss. in ms. notes 'legendum videtur *qui dant quae mente volutes*.' 239 I retain *recĕpit* with AB: comp. n. to II 1125 *Accedere:* Virgil's and other old mss. retain many traces of this *e*, intermediate between the *a* of the simple verb and the later *i*. 244 *e parvis et levibus est elementis* Wak. in notes for *e p. et l. ex elem.* and justly: comp. VI 330: in his text he follows Camb. *est p. et l. ex el.* which may be right. *et p. et l. ex l.* Lach. *e parvis aut l. ex el.* Junt. Lamb. etc. 249 is first rightly given by Avanc. in the notes at the end of his Catullus 1502: AB have *Concutitur tum sanguis viscera persentisiunt:* Flor. 31 Camb. 3 Vat. give *persentiscunt:* this unrhythmical order of the first words appears in the Junt. and in the text even of Lamb. ed. 1; in ed. 2 and 3 and notes of 1 he reads *Tum quatitur sanguis, tum:* Nic. Nicc. misled by *persentisiunt* strangely gave *Concutitur tum sanguis per sentes viscera iunt;* and hence Ver. and Ven. *vint* for *iunt;* out of which Avanc. in Ald. 1 ingeniously devised *Concutitur sanguis per venas, viscera vivunt Omnia*, but he afterwards learnt better. 254 *ut* added by Lamb. 257 *retinere valemus* A corr. Nic. Nicc. all before Lach. most properly for *retinemus valemus:* he reads absurdly *retinemu' valentes*, as if we could not be in life without being in health.

266 *viscere* B. *visere* A and clearly Ms. of Poggio, as Nic. Nicc. and all late mss. and early editors so read, even Junt. but not Avanc.: yet to Wak. *viscere* is 'sordidum et ineptum'! 288 *etenim* Faber in emend. and Lach. for *etiam:* a necessary change. Lach. rightly follows Bentl. in joining *in ira* with *Cum fervescit*. 289 *acribus* Lamb. ed. 2 and 3 for *acrius*. 290 *et*. *ea* Lach. intolerant of *et* for *etiam*. 293 *qui fit* Ald. 1 Junt. for *fit qui*. 298 is placed by Lach. before 296 without cause. 303 *nimis* Flor. 31 Camb. Vat. 1954 Othob. for *minus*. 304 *umbra* B. *um-*

bram A Nic. Nicc. Camb. which may be right: comp. Plaut. rud. 588 *Quasi vinis Graecis Neptunus nobis suffudit mare.* 305 *pavoris* Ald. 1 Junt. for *vaporis.* 306 *Inter utrosque sitast* Avanc. (*sita est* Junt.) for *Inter utrasque sitas. sitas* of mss. must be *sitast:* the scribe has then adapted *utrasque* to *sitas. Interutraque secus* Lach. *Interutraque secat* Bern. 309 *Naturae* Junt. for *Natura.* 317 *quot. quod* AB, which Lucr. may have written: see Lach. 319 *videor* Faber for *video. firmare* Ver. Ven. etc. for *formare.* 321 *nobis* Lach. for *noctis. dictis* Ald. 1 Junt. Lamb. ed. 1 and 2. *doctis* Lamb. ed. 3.

332 *fiunt consorti...vita* Junt. first for *consorti fiunt...vitae.* 333 though sound, is much corrupted by Junt. Lamb. vulg. 335 *eas* Lach. for *eos;* as *eos* is contrary to the usage of Lucr. 346 *reposta* Avanc. for *reposto. reposti* Junt. without sense, not *repostis.* 347 *ut* added by Junt. 350 *refutat. renutat* Lamb. 358 is justly ejected by Creech in notes and Bern. Lach. keeps it, but for *Multaque* reads *Nullaque* which seems scarcely to be Latin. Lamb. condemns 357 which Creech well defends.

361 *Difficilest. Desiperest* Lamb. ed. 2 and 3 Gif. Lach.: but see notes 2. *dicat* Lamb. for *ducat.* 362 Lamb. most justly rejects: it is a manifest gloss to explain the corrupt *ducat.* Lach. puts it after 363, and gives a most unnatural explanation. 365 *quia* Lach. for *qua.*

372 *privis,* 378 and 380 *priva* Bentl. for *primis* and *prima:* 389 *priva* is in the mss. 374 *animae elementa minora* AB Nic. Nicc. Brix. Ver. Ven.: this I have retained. *animai el. min.* Flor. 31 Camb. Ald. 1 Junt. vulgo; but the elision is not tolerable. *elementa minora animai* Lach. 375 *e* AB Lamb. ed. 3 Creech Lach. rightly. *et* A corr. B corr. Nic. Nicc. Flor. 31 Camb. all Vat. all eds. bef. Lamb. 3, Gif. Wak. 383 *aranei* Ald. 1 Junt. for *arani:* see Lach. 391 *ciendum* Avanc. for *ciendo.* 392 and 393 first placed in their right order by Junt. 394 *Et quam in his intervallis* Lach. acutely for *Et quantis int. Et quam intervallis tantis* Ald. 1 Junt. vulgo. *Et tantis intervallis* Wak.

400 *et discedit* Vat. 3276 Ald. 1 Junt. for *ediscedit.* 403 *circun* Flor. 31 Camb. corr. for *cretum.* 404 *remota* B corr. Lach. for *remot* B, *remotus* A. *remotis* vulg. 405 *aetherias. aerias* Lach.: without any just cause he alters this and many other passages of Virgil and others on the assumption that *aetheriae* cannot be joined with *aurae.* 411 *Et. Sed.* Junt. Lamb. etc. wrongly. 412 and 415 are necessary to complete the comparison between the ball and pupil of the eye and the *anima* and *animus.* Lach. is therefore quite wrong in ejecting them. But in 415 *alioqui* is corrupt. I have there transposed a single letter and written *aliquoi,* adding *sit* which could easily fall out before *splendidus.* 412 Lamb. ruins the sense by reading *confiet* for *non fiet.*

420 *Digna tua...cura* Lach. for *Digna tua...vita. Perpetua...vita* Bern. with reference I presume to 13 *perpetua semper dignissima vita:* but surely *digna* or *dignissima* would be required. *Digna tuo...vate* Creech: but *vates* to Lucr. had only a bad meaning. 421 *utrumque uni subiungas nomen eorum* Lach. for *u. uno s. nome e:* the lost *n* of this v. having much the same place as the lost *c* of the preceding: but perhaps Lucr. wrote *utrumque uno sub iungas nomine eorum,* which is nearer the ms. reading and agrees better with what next follows. 428 I retain the ms. reading.

Lach. writes *iam* for *nam*: but he thereby inverts the argument: comp. 203 sqq. Lucr. says 'the soul is seen to be marvellously nimble: therefore it is formed of very minute seeds.' Lachmann's error is most manifest. 430 and 433 are ejected by Lach.: wrongly in my opinion. 430 *movetur* Junt. for *moventur*. 431 *Quod genus in somnis*. Here again Lach. without cause reads *est* for *in*: comp. II 194. *alte Ex. vaporem* Lach. rightly for *alta Ex. vapore*. 432 *Exhalare*: *Exalare*, V 463 *Exalantque*, VI 478 *alitus* AB, followed by Lach. who does not however omit the aspirate, where only A or B omit it, as II 417 V 253 VI 811 and IV 864 VI 221. '*exala*: this form is better attested by ancient mss. than the common *exhalare*' Halm Cic. phil. II 30 ed. Mayor. This seems doubtful even in Cicero: his colleagues, Baiter Tusc. I 43 II 22 and Jordan Verr. III 28 retain *h*: of the capital mss. of Virgil only M seems ever to omit it. 433 *hinc* Bentl. for *haec*. *genuntur* Lamb. for *geruntur*. 438 *in* added by B corr. 441 *quam* Junt. for *cum*. 444 *is cohibessit* Lach. for *incohibescit*. *am cohibessit* Lamb. Gif. *incohibessit* Wak. *usque liquescit* Bern. *in quo habitet sit* Ed. in small ed.: *in quo* might be looked on as one word and the elision thus be defended; but see Luc. Mueller de re metr. p. 284 and notes 2 to I 1091. 453 *lingua labat mens* Lach. for *lingua mens*. *lingua madet mens* B corr. from 479. *linguaque mensque* Nic. Nicc. vulg. 458 *fatisci* Nic. Nicc. Flor. 31 Camb. Vat. Bentl. for *faetis*. *fatiscit* B corr. Junt. Lamb. not so well.

474 475 *Et quoniam mentem sanari corpus ut aegrum Et pariter mentem sanari corpus inani*: an absurd interpolation: 474=510; 475 Ald. 1 Junt. replace by 511. Lamb. first expelled both. 476 *quor*. *cōr* AB, which is the same thing: so II 194, IV 575 *com*=*quom* or *cum*; IV 116 *eorum* AB, *corum* Lach. i. e. *quorum*. *cōr hominum* Nic. Nicc. Flor. 31 Camb. 5 Vat. old eds. before Junt. which Wak. absurdly keeps. 482 *Cur ea sunt* Nic. Nicc. for *curba sunt*. 492 *quia* Nic. Nicc. Flor. 31 (not Camb.) old eds. for *qua*. 493 *spumat, quasi in* Lach. for *spumans in*, most acutely: former correctors and editors, even Lamb., had quite mistaken the meaning, and joined *agens animam* with *vis morbi*: their various readings are not worth mentioning: Wak. is unusually perverse. 497 *Eiciuntur* Lamb. most properly for *Eliciuntur*: see 58 and IV 945. 523 *rationi* Ald. 1 Junt. for *rationis*. 525 *refutatu* Junt. for *refutatur*.

531 *Scinditur itque animae hoc* Ed. for *Scinditur atque animo haec*: comp. 526. *Sc. usque adeo haec* Lach. *Sc. aeque animae haec* Bern. *Sc. atqui animo haec* Junt. *Sc. atque animae* Lamb. vulg. 535 *deducere* Camb. Ver. Ven. for *diducere*. 538 *ante* added by Nic. Nicc. Flor. 31 Camb. etc.

548 *loco quae* Lach. first for *locoque*. 551 *atque*. *aut* Lach.: but comp. V 965 *glandes atque arbita vel pira lecta*. 553 *Sed tamen in parvo linguntur tempore tali* mss. 'quidam doctus' says Lamb. who condemns the verse '*liquuntur*.' '*linguntur* mss. puto legend: *secta etenim parvo vincuntur tempore tabi*, nisi malis *liquuntur*...*tabi* pro *tabe*, ut *parti contagi* pro *parte contage* vet. passim' Is. Voss. in ms. notes. *Sed tamen* is of course quite right; I have written therefore with Creech in notes *Sed tamen in parvo licuntur tempore tabe* (Aen. III 28 P has *linguntur* for *licuntur* and Lucr. IV 1243 Ver. Ven. have *lignitur* for *liquitur*). *linquuntur* Flor. 31 vulg. *in parvo lincuntur tempore tabi* Lach. 'ita Vergil.

[redacted]

Alitibus linquere feris, et Ovid. *leto poenaeque relictus*': but the moment the body is dead, *linquitur tabi*, whether the *tabes* comes at once or years after; so that *tamen in parvo tempore* would have no meaning. 555 *vas esse* Nic. Nicc. for *vasse*. 557 558 Lach. has no stop after *adhaeret*, and a comma after *Denique:* 558 begins a new paragraph; and I find from his proof-sheets that he altered the usual punctuation only in his final revise. 564 *ipse oculus* Flor. 31 (not Nic. Nicc. Camb. Brix. Ver. or Ven.) for *oculus ipse*. 566 *per* added by Nic. Nicc. etc. *mixtim* Nic. Nicc. (not Flor. 31) Camb. Brix. Ver. Ven. for *mixti*. 571 *moveri* Lamb. for *movere*, 'inscitissime' says Wak.: see notes 2 to VI 595. 573 *animans erit* Lamb. for *animam serit*. 574 *eo* Faber for *eos;* a certain correction rightly admitted by Bentl. and Creech. Lach. strange to say has neglected it and received instead Wakefield's violent alteration *In se animam* for *Sese anima*.

583 *animae vis* Flor. 31 Camb. Ver. Ven. etc. for *anima eius*. 586 *foras anima emanante* Wak. for *foras manant animaeque*. *foras manante anima usque* Lach. 594 *de corpore velle* Lach. acutely for *de corpore omnia membra* which has come from 596: Nic. Nicc. Brix. Ver. Ven. omit 595 and 596. 596 *trunco* added by Lach. *cadere omnia corpore membra* Flor. 31 Camb. vulg. 597 *perhibetur* B corr. Junt. for *peribet* B, *periberet* A Nic. Nicc. After 614 Ald. 1 Junt. vulg. insert the following useless verse, *Gauderet, praelonga senex aut cornua cervus*.

617 *certis hominis regionibus haeret* Ed. for *certis regionibus omnibus haeret:* the two words being so often confounded. *c. regionibu' pectoris h.* Lach. *c. r. omnis inhaeret* Lamb. 620 *partitis* Bern. for *pro totis*. *perfectis* Lach. 623 *solita neque insigni* AB. *in igni* Nic. Nicc. *solita est* Flor. 31 Camb. etc. 624 *si immortalis* Nic. Nicc. for *si mortalis*. 628 *vagari* Lach. for *vacare*. 632 *animae* Pius conj. for *anima*. *vagare* B corr. Lamb. vulg. perhaps rightly. 633 *auditu* Ed. for *auditum*. *Haud igitur* Lach. who here begins a new sentence.

647 *semel* Lach. for *simul*. 657 658 *micanti* and *cauda e* Ed. with Lach. for *minanti* and *caude:* but Lach also reads *serpentem* for *serpentis*, *utrimque* after Junt. for *utrumque;* and after all, his construction is very forced. *l. v. minantis Serpentis caudam procero corpore, utrinque* Lamb. 662 *seque retro* Nic. Nicc. for *sequere retro*. 663 *dolorem* Lach. for *dolore*.

676 *a leto* Lach., *longiter* Lamb. Lach. from Charisius and Nonius, for *ab l. longius:* yet the best mss. of Cic. sometimes have *ab* before *l;* as *ab litore* and the like. 685 Lamb. has most properly rejected as manifestly spurious: it is clearly a sarcastic gloss. Lach. retains it and for *affluat* reads *arceat:* an unlikely conjecture. 686—690 (690—694): Lach. was the first to transpose these mss.; and strange it is he should have been the first. 689 (693) *morsus* Lach. for *morbus*. 690 (694) *oppressus, subiit si e frugibus* Bern. for *oppressus subitis e frugibus*. *expressus, subiens e fr.* Lach. 702 *Dispertitus enim* Lach. for *dispertitur ergo*. *Dispertitur enim* Brix. Ald. 1 Lamb. 705 *quamvis integra recens in* Ald. 1 Junt. for *quamvis est integra recens*. 710 *tum* Brix. Ver. Ven. rightly for *tunc*. *periit*. *peritat* Nic. Nicc. and later mss. and eds. before Junt.

718 *Ut* Ver. Ven. etc. for *Et*. 732 *alguque* Lamb. and so also Nonius

for *algoque*. 733 *adfine* A p. m. (?) *atfine* B. *et fine* A corr. Nic. Nicc. Gif. first restored *adfine* to text: the note in ed 3 of Lamb. is amusing. Wak. returns to *et fine*. 734 *contage*. *contagibus* Lach. 736 *Cum subeant* is quite right. *Quod s.* a friend of Faber's, both Faber and Bentl. approving. *Cui s.* Bern. *qua* Ald. 1 Junt. for *que*. 738 *quidum* Bern. acutely for *ut quicum*: the origin of the corruption is plain. Lach. adopts from Lamb. *ut iam*, which he allows 'a litteris nimium recedere.' 740 *consensus* Lach. for *consensu*.

743 rightly rejected by Lach. and before him by a 'doctus quidam' ap. Lamb. as a manifest sarcastic gloss, which interrupts sense and construction: Ven. Ald. 1, not Junt., read *cervis* for *cervos*. Lamb. *dolu' vulpibus* also. 747 *toto* B, *quoque* A and all other mss. and old eds. '*toto* praetuli, quia non possum ullam artem agnoscere in simili hoc trium versiculorum exitu, *ingenioque*, *seminioque*, *corpore quoque*. non potest autem dubitari quin utraque scriptura fuerit in archetypo' Lach. Lamb. also has *toto;* authority is clearly for *quoque*. 760 *sin* Ald. 1 Junt. for *sic*. 763 = 746: of course a gloss, with no connexion with the text. Bern. includes 764 in the gloss, in my opinion not rightly.

784 *in alto*. *salso* Lach. because *salso* is found in the repetition of this passage v 128. But as Lucr. like Virgil, so often varies in such points, I cannot bring myself to depart from the mss. 789 *longiter* Lamb. Lach. *longius* all mss. here and v 133: comp. 676. 790—793 are repeated v 134—137 without the mss. differing in a single letter. I flatter myself I have made the passage clear by a correct punctuation without the change of a word: 790 *posset enim multo prius* I enclose in brackets, and begin the apodosis at *soleret*. Lach. here and in V reads *Quid si posset enim? multo*. Ald. 1 Junt. vulg. give *Hoc si posset enim, multo*. 800 *mortale* Junt. for *mortalem*. 805 *saevas* Junt. for *salvas*. 806—818 = v 351—363 word for word. They here interrupt the argument, and are of course one of the many glosses with which some reader has wished either to explain or refute the poet by quoting his own verses for or against him, as the case may be. But as that which follows in the fifth book, applies only to the heaven, not to the mind of which Lucr. is here speaking, he did not continue his quotation; but Ald. 1 and Junt. followed by all editors before Lach. add v 364—373, rudely altered to suit the present subject. This was probably done by Marullus. 'at Michahel Marullus' says Lach. justly indignant 'illo [lectore] audacior nihil veritus est ceteris transferendis immanes ineptias inferre; quos versus cum omnes libris veteribus sine exceptione omnibus abesse aut scirent aut certe deberent scire, plerique sine admonitione susceperunt, Wakefieldus, cui Forbiger adsensus est "poetae" (id est Marulli) miratur "consideratam severitatem diligitque, per tam dilucidam ratiocinationem simpliciter mentem suam exponentis." mihi Marulli male sedula simplicitas non nimis exagitanda esse videtur: subiciam tamen eius versiculos, ut appareat quae Lambinis et Wakefieldis (ceteros nunc omitto) Lucretio dignissima visa fuerint. *At neque, uti docui, solido cum corpore* mentis *Natura est, quoniam admistum est in rebus inane, Nec tamen est ut inane, neque autem corpora desunt Ex infinito, quae possint forte coorta Corruere hanc* mentis *violento turbine* molem, *Aut aliam quamvis cladem importare pericli, Nec porro natura loci spaciumque profundi Deficit, exspargi quo*

possit vis animai *Aut alia quavis* possit *vi pulsa perire, Haud igitur leti praeclusa est ianua* menti.' 820 *letalibus* Lamb. for *vitalibus*. After 823 a verse is lost, which Lach. thus supplies, *Multa tamen tangunt animam mala, multa pericla.* Ald. 1 and Junt. insert after 820 the following, *Scilicet a vera longe ratione remotumst;* which Lamb. retained, but placed after 823. 824 *morbist cum corporis aegrit* A B. *morbis* Avanc. first: no 'Italus' before him. *aegret* Gif. in notes rightly for *aegrit.* Nic. Nicc., deceived by *morbist* and thinking *cum* a conjunction, wrote *cum corpus aegrotat,* which led to endless confusion in later mss. and eds.: even Lamb. was misled, and Creech and others before Lach. neglected Gifanius' hint. 829 *nigras.* 'f. *pigras,*' Heins. in ms. notes: Markland proposed the same, but without cause. 826 *macerat* Flor. 31 Ald. 1 Junt. for *maceret:* yet Wak. retains the solecism.

835 *aetheris oris* Gif. for *aetheris auris;* and so Lucr. always writes elsewhere. 844 *Distractast* Nic. Nicc. for *Distractas.* 847 *materiem* B, *materiam* A Nic. Nicc. 851 *repetentia* B rightly. *repentia* A Nic. Nicc. Flor. 31 Camb. etc. *retinentia* Avanc. Lach. *nostri* Pius in notes, Gif. Lach. for *nostris.* *nobis* Avanc. *nostra* Junt. vulg. 853 *neque* added by Lach. *nec* Ald. 1 Junt. vulg. 853 *adficit* (*aff.*) Flor. 31 Ald. 1 Junt. 856 *multimodis* Lach. with Wakefield's Δ for *multimodi.* 858 (865) transferred here by Lach. who is naturally surprised that it was left for him to do. 862 (861) *misere si* Turnebus and Is. Voss. in ms. notes, before Lach. for *miserest.* 864 (863) *mors* B corr. Flor. 31 for *mox.* *probet* Lach. *prohibet* Turnebus for *prohibe.* 868 *Differre anne ullo* Ed. for *Differre annullo anullo* A, *anullo anullo* B. *a nullo* Nic. Nicc. *isne ullo* Ed. in small ed. *Differre ante ullo* Lach.; but *differre fuerit* seems not to be Latin. *Differre an nullo* of Ald. 1 Junt. Lamb. etc. has no sense.

871 *putescat* Avanc. Wak. Lach. for *putes.* *putrescat* Flor. 31 Junt. Lamb. vulg. Cic. de fin. v 38 *ne putisceret* Nonius, *putresceret* mss. de nat. deor. II 160 *ne putesceret* mss. speaking of the same thing. 873 *non sincerum* Flor. 31 Camb. for *no sincerum* A Nic. Nicc. *nos sinc.* B. 880 *lacerent* Nic. Nicc. for *iacerent.* 881 *dividit illim* A. *vidit illum* B. *dividit illum* Nic. Nicc. *dividit hilum* Flor. 31 Camb. etc. *vindicat hilum* Lamb. 886 *Qui* Flor. 31 (not Nic. Nicc.) Ald. 1 Junt. for *Cui.* 887 *se* added by Flor. 31 Camb. Avanc. *dolere* Lamb. for *dolore.* 893 *obtritum* Ald. 1 Junt. for *obrutum.*

894 *Iam iam* Flor. 31 4 Vat. Lach. *Amiam* A Nic. Nicc. *Vimiam* B. *At iam* Ald. 1 Junt. vulg. *At iam* is perhaps right. 897 898 Lamb. has departed widely from the mss. without any cause, reading *tibi fortibus* for *florentibus, miser o miser* for *misero misere.* 902 *quod* Nic. Nicc. for *Quo.* 904—908: to these verses Bern. has properly attached the mark of apostrophe.

917 *torres* Lach. for *torret* A, *torrat* B A corr. Nic. Nicc. *terra,* Flor. 31 Camb. etc. Lamb. 919 *requirit* Flor. 29 corr. (Politian?) Camb. corr. Nauger. for *requiret.* 921 *esse soporem* A Nic. Nicc. vulg. *esse praemo* B; a mere blunder, the *so* being absorbed in *esse:* yet Bern. reads *per aevum.* 922 *adficit* Lamb. ed. 1 and 2, Heins. in ms. notes for *adigit.* *attigit* Flor. 31 Camb. Avanc. Lamb. ed. 3.

935 *Nam gratis anteacta fuit tibi vita priorque* Ed. for *N. gr. fuit*

tibi vita anteacta priorque. N. gr. fuit haec t. v. a. pr. Lach. *N. si grata f. t. v. a. p.* Nauger. *Nam gratis fluxit* cet. Junt. *Nam gratum f. t. v.* cet. Nic. Nicc. *Nam gratisne fuit* Bern. 941 *offensust* Lamb. for *offensost.* 942 *male et* B Flor. 31 etc. rightly. *Mali et* A Nic. Nicc. Camb. Wak. 943 *finem facis* Avanc. for *finem iacis.* 945 *placeat* Nic. Nicc. for *placet.* 948 *pergas* Lamb. ed. 3 for *perges.* 950 *nisi* Junt. for *si.* 952 (955) placed here first by Lach. 955 (954) *balatro* certain critics in Turneb. advers. Nic. Heins. in ms. notes for *baratre. barde* Ald. 1 Junt. 958 *inperfecta* Flor. 31 Camb. etc. for *inperfecte.* 962 *agedum gnatis concede* Bern. for *agendum magnis concede. a. jam aliis c.* Ald. 1 Junt. vulg. *dignis* Lach. *humanis* Ed. in small ed. 966 *deditur* A Nic. Nicc. Flor. 31. Camb. 3 Vat. *dedit* B. *decidit* B corr. Lamb.

978 *Atque ea nimirum* A B Flor. 31 Camb. 2 Vat. Priscian p. 554 most rightly. Nic. Nicc. has *Atque animarum etiam:* a strange error which is repeated in 2 Vat. Brix. Ver. Ven. Ald. 1 and 2, Junt.: the last three read *Atqui.* Avanc. however at the end of his Catullus rightly recalls *Atque ea nimirum;* as do Lamb. vulg. but not Wak. 983 *cuique. cumque* B Lamb. etc. wrongly. 985 *quod* Camb. Junt. etc. for *quid.* 988 *dispessis* Turneb. for *dispersis:* so Ed. in II 1126: Comp. Ovid. met. IV 458, and Plaut. miles 1407. *dispensis* Lamb. ed. 3. 'leg. distensis dispansis' Heins. in ms. notes. 994 *cuppedine* Lamb. rightly, as V 45 VI 25. *curpedine* A B. *turpedine* A corr. Nic. Nicc. Flor. 31 Camb. Junt. etc. *torpedine* Ven. Ald. 1 Gif. who says 'Ita v. nostri et aliorum fere. in q. v. *cuppedine*, quod inrepsisse puto ex aliis locis inf. lib. 5 et 6... contra Marull. ex hoc loco mutarat inf. lib. 5 et 6 *torpedine* pro *cupp.* supposito.' Now the Junt. reads here, as I have said, *turpedine;* V 45 and VI 25 *cupedinis.* Again Ven. not Brix. or Ver. *torpedine* here. This therefore is one of many proofs, some of which I have given elsewhere, that Gifanius had the old Venice edition with Marullus' ms. notes before him, and that this is the book belonging to Sambucus of which he speaks both in his preface to Sambucus himself and in his address to the reader: see above p. 8. It is also a proof that we are not to give to Marullus' all the new readings of the Juntine, whether good or bad. 1001 *e summo iam vertice* Avanc. for *summo iam vertice. summo iam e vertice* Flor. 31 Camb. *a su. i. v.* Junt. vulg. 1005 *circum Cum redeunt. victum, Cum redeunt* Lach. without cause. 1009 *congerere* B corr. etc. for *cogere.* 1010 *nulla* Nic. Nicc. for *ulla.* After 1011 I believe some verses are lost. Both the words of Servius to Aen. VI 596 and his context prove to me that he is speaking of Lucretius, not of Virgil as Bernays affirms in Rhein. Mus. n. f. V p. 584, when he says 'per rotam autem ostendit negotiatores qui semper tempestatibus turbinibusque volvuntur.' It is quite possible his account is vague and inaccurate; and that Ixion would have to be mentioned rather before, than after 1011. I have appended the mark of a hiatus and made no change in the text. For *egestas* of all mss. and of Brix. and Ver., Ven. has the remarkable reading *egenus*, adopted by Ald. 1 Junt. Lamb. vulg. Lach.; but it is of course a pure conjecture which Lach. wrongly gives to Marullus. 1013 *Qui neque. Quid? neque* Lach. *Haec neque* Junt. vulg. 1014 *poenarum* Nic. Nicc. for *paenarum* of A B: in ancient times there seems to have been a struggle between *paena* and the more

correct *poena* which finally prevailed. *paenitet,* or later *penitet,* was alone known. 1016 *iactu' deorsum* Lamb. for *iactus eorum. iactu' reorum* Heins. in ms. notes. 1017 *iam mina* A B. *agmina* Nic. Nicc. Flor. 31 Brix. Ver. *lamina* Ven. vulg. *lammina* Lach. 1019 *terretque* Lach. for *torretque. torquetque* Heins. in ms. notes and advers. which Virg. Aen. VI 670 *sontis...flagello...quatit* might perhaps support. 1023 *Hic. Hinc* Junt. Lamb. vulg. not rightly.

1031 *superare* Nic. Nicc. (not Flor. 31 or Camb.) for *super ire.* Lach. encloses the v. in [ ], as wrongly retained by the first editor. 1032 *equis. aquis* Lamb. etc. wrongly. 1033 *fudit* Ald. 1 Junt. for *fugit.* 1034 *Scipiadas* A B Lach. *Scipiades* Nic. Nicc. vulg. 1038 *potitus* Flor. 31 Camb. Brix. for *potius.* 1040 *memores. memorem* Lamb. 1042 *obit* Flor. 31 for *obiit. iit* Lach. *iit* can scarcely be used in this unqualified way for *mortuus est;* nor is the evidence adduced by Lach. in his long and most learned note sufficient to shew that Lucr. could not have used the form *obit* before a consonant: but see notes 2. 1044 *aetherius* Lactantius Junt. *aerius* mss. 1050 *potes tibi quid sit* Lach. for *potest ibi quod sit. potes quod sit ibi* Nic. Nicc.: hence *potes quid sit tibi* Flor. 31 Camb. Brix. Ver. Ven. Avanc. vulg. *potes quod sit tibi* Junt. Ald. 2 wrongly. 1052 *animi incerto* Lamb. for *animo incerto.*

1061 *revertit* added by Politian in marg. Flor. 29 Ald. 1 Junt. vulg. *reventat* Flor. 29 Flor. 31 Camb. 1063 *praecipitanter* Nic. Nicc. for *praecipiter.* 'f. *praecipiterque...instat*' Heins. in ms. notes. 1068 1069. By a better punctuation I have I think made this disputed passage quite clear: 1069 *ingratis* Lamb. rightly for *ingratius:* nothing else is to be changed; but *at quem...haeret* are to be enclosed in brackets. 1068 for *quem* Lach. *quom:* his note is most unsatisfactory and to me almost unintelligible; especially the words 'nam sese homo aut semper effugere potest aut numquam, quoniam hoc totum figurate dicitur.' Seneca de tranquill. II 14 clearly read *quem:* he explains Lucr. quite correctly. 1069 *haeret et angit* Junt. Lamb. vulg. For *ingratius* Ven. alone has *initus;* therefore Avanc. who founded his revision on it has *invitus adhaeret.* 1068 *fugit at. fugitat* Madvig poet. Lat. carm. sel. 1843: but Seneca, as well as our mss., clearly read *fugit at.* 1073 *Temporis aeterni* Ald. 1 Junt. first for *Aeterni temporis.* 1075 *manenda* Lamb. for *manendo.*

1078 *Certa quidem* Avanc. before Lamb. for *Certe equidem.* 1085 *fortunam* Ald. 1 Junt. first for *fortuna.* 1088 *delibare* Junt. for *deliberare. delibrare* Avanc. Lamb. 'f. devitare' Heins. in ms. notes. 1089 *possimus forte* Nic. Nicc. Flor. 31 Camb. Brix. Ver. Ven. for *possumus forte. sorte* Ald. 1 Pius Junt. Naugerius. *morte* Lamb. first: no 'Italus' before him.

BOOK IV

7 *animum. animos* Lactant. inst. I 16: see I 932. 8 *pango* Flor. 31 Camb. 3 Vat. vulg. for *pando:* so I 933. 11 *Nam. Ac* Quintil. III 1 4 Nonius Hieronym. 13 *Contingunt. Inspirant* or *Aspergunt* Quintil. 17 *pacto* Lach. for *atacto:* so I 942. *a tactu* Nic. Nicc. 1 Vat. Ver. Ven.

Ald. 1 Junt. Wak. *attactu* Flor. 31 3 Vat. *adtactu* Camb. *tactu* Lamb. ed. 3. *facto* Lamb. ed. 1 and 2 Gif. 32 *dereptae* B Lamb. *direptae* A Nic. Nicc. all before Lamb. 41 *quaeque. quoique* Lach. '*discessus*' he says 'non aliter dari potest quam quomodo *fugam dari* Vergilius dixit, id est concedi.' But Virgil also says XII 367 *fugam dant nubila*, that is *fugiunt:* see too notes 1 for many more illustrations. *discessum dederit* therefore = *discesserit*.

42 *effigias* Lamb. rightly for *effugias* of A B. *effigies* Nic. Nicc. and all mss. and eds. between him and Lamb. 43 *summo de corpore rerum* Lach. for *summo de cortice eorum*. *summo de corpore earum* Lamb. vulg.: but comp. 31 and 64, and Lachmann's note. 44—47 (45—48) = III 31—34, except 44 *Sed quoniam* for *Et quoniam*, 47 *Quoque, possit* for *Quove, possint*, are rightly ejected by Lach. as a gloss. In this place they are of course quite inadmissible. Junt. vulg. put them before 26; and thither, if retained, they must be transferred. To this Lach. offers the objection that while the first 24 lines are repeated word for word from the first book, in 25 we have *ac persentis utilitatem* for *qua constet compta figura:* this change he says was probably made because in 27 are the words *compta vigeret;* but had the poet really inserted 44—47 before 26, this alteration would not have been called for: see however what is said in notes 2. 48 49 (49 50) = 29 30 and seem to be repeated here without meaning because of the resemblance between what precedes and follows them there and what precedes and follows here. Junt. first omitted them. 50 (51) *quae* Nonius Flor. 31 Camb. etc. for *qui*. 52 (53) *cluet* Brix. Avanc. Ald. 2 for *ciuet*. *cui et* Nic. Nicc. *tui et* Flor. 31 Camb. *eluet* Ven. Ver. *queat* Junt. 53 (44) first transferred hither in Junt. 54 *mittunt* Nic. Nicc. for *mittuntur*. 68 *eodem* Junt. for *eorum*. *rerum* Ven. Avanc. 69 *et formai* Is. Voss. in ms. notes for *et forma*. *et cum forma* B corr. *veterem et formam* Camb. *veterem et formae* Vat. 1136 and 1954. Othob. Lamb. *solitam et formae* Avanc. Nauger. *formaeque suam* Junt. *conformem* or *consimilem* conj. Lamb. *conformem* Heins. in ms. notes. 71 *et sunt prima* A B. 'quadratus habet *in* ante *prima* additum antiquissima, si non prima manu': so Ald. 1 Junt. and rightly. *et quae sunt prima* Lach. *et sunt prima sub* Flor. 31 Camb. 72 *iacere ac largiri* Lach. most acutely for *iacere aciergiri*. *iacere ac iaculari* Flor. 31 Camb. 2 Vat. Ald. 1 Junt. etc. 77 *flutant* Turnebus Lamb. ed. 3 for *fluctus* B. om. A Nic. Nicc. 2 Vat. Brix. Ver.: hence *circum, pendent, duras* in various mss. and eds. 79 *Scaenai* Lamb. first for *Scaenal* A, *Scaenali* B. *Scaenalem* A corr. Nic. Nicc. all mss. and eds. between him and Lamb. *patrum coetumque decorum* Ed. for *patrum matrumque deorum*. *patrum matrumque deorumque* Nic. Nicc. all before Lach. *pulcram variumque decorem* Lach. *claram variamque deorsum* Bern. But comp. Aen. v 340, Tac. ann. XIII 54 and Camb. Journ. of phil. I p. 373. Lucr. often has *que* in the third place: comp. 104, and see notes 2 to II 1050. *patrum* and *decorum* seem to me pretty certain: for *coetumque* perhaps rather *ornatumque* or the like. 81 *inclusa theatri Moenibu'* Ed. for *inclusa* (B, *inclaustra* A Nic. Nicc.) *theatri Moenia:* a necessary and simple correction: *Moenia* has arisen from the neighbouring *inclusa, haec, perfusa*: so II 458 *omnia* for *omnibu'*, II 919 *animalibu'* for *animalia*. *inclusa theatri Moenia*, the vulg. reading, has

no sense. *angusta theatri Moenia* Lach. which is contrary to the truth. 91 *diffusae rebus* A B. Lamb. has rightly added *e*; and 92 he has also rightly given *intrinsecus* for *extrinsecus*: so VI 1099 *intrinsecus* A for *extrinsecus*. 94 *coorte* B, i. e. coortae; and so Lamb. ed 3. *coorta* A. *qua contendant* A B most properly. *qua contendunt* Nic. Nicc. and all mss. and eds. between him and Lach.: 91 *diffusa e*, 92 *extrinsecu' torte*, 94 *coorta* Lach. whose explanation is most forced. 101 *Extima, imaginibus* Ed. for *Ex imaginibus*: the scribe neglected to repeat the *ima*. *Excita imaginibus* Lach. *Esse in imaginibus* Avanc. Nauger. Lamb. vulg. without meaning. *Esse et* Junt. *rerum* Lach. for *eorum*, as in 43. *earum* Junt. 102 103 = 65 66. 104 *formae rerum similesque* Ed. for *formarum dissimilesque*: comp. Camb. Journ. of phil. I p. 43. I have since learnt that Hugo Purmann hit upon the same correction before me. *dissimilesque* was written merely to fill up the verse. *formarum illis similesque* Lach. *formarum consimilesque* Lamb. vulg.

116 *quorum* H. Purmann Lucr. quaest. p. 27, *corum* Lach. for *eorum*. *eorum ut* Camb. Vat. 1136 Othob. Junt. *ut horum* Vat. 3276 Nauger. *eorum...nulla ut possit* Avanc. After 126 not a few vss. must have been lost. N. Heins. in ms. notes says 'aliquid deest:' Haverc. suspected the same. Lach. by an elaborate and acute calculation shews or endeavours to shew that one page of the archetype containing 25 lines and one heading, *Esse item maiora*, has been lost. That a page of the archetype ended with 126 is certain; that another page commenced with 127, and that this page was a left-hand or even-numbered page is no less certain, as Lach. has demonstrated. It is also perhaps more probable that 25 lines were here lost, than double that number or more, because the poet in 115 says, as Lach. points out, *percipe paucis*. But Lachmann's calculation, taken in conjunction with his general theory of the mode in which A B and the other mss. descended from the archetype, involves a great difficulty which is discussed above p. 21. Lach. thus continues the sentence of 126 *duobus* [*Attingas digitis*]: Haverc. [*Contrectes digitis*]. For *duobus* Ald. 1 Junt. have *movebis*, Lamb. *ciebis*, Is. Voss. in ms. notes *revolves*. Among the lost verses Lach. places this fragment, *qui fulmine claro Omnia per sonitus arcet, terram mare caelum*: which I believe belongs to Ennius, not to Lucr. at all, as it has nothing of his style about it; and Servius Aen. I 30 assigns it distinctly to the former, while the words of Probus to Ecl. VI 31 are ambiguous.

129—142, strangely transposed in the mss. as may be seen by our left-hand numbering, were first brought into order by the acuteness of Lamb.: see above p. 22 for a possible explanation of this disorder. 138 (136) *motu. nam. motum in* Nic. Nicc. the cause of great confusion in later mss. and eds. before Junt. and Lamb.

143 *genantur* Lamb. for *gerantur*: a necessary change here, though he often introduces the word without cause. After 144 a verse has manifestly been lost: it is curious that Junt. and Lamb. should have overlooked this. 'deest *Percipe* vel *Expediam*, tum paucula a quibus illud *enim* quod subicitur pendeat' Lach. 147 and 152 *vitrum* Oppenrieder for *vestem*: a necessary correction which it is strange neither Lamb. nor Lach. should have made. Lamb. indeed sees the difficulty involved in *vestem*, Lach. does

not: comp. 602. 152 *potis est* Lach. for *possunt*. *autem*. *ante* Ven. and hence Avanc. Junt. and all eds. before Lach. 159 *genuntur* Lamb. for *geruntur:* here too a necessary correction. 167 *Res ibi* A and most mss. and eds. *Res sibi* B Camb. Ven. which Lach. thinks 'unice verum.' *Res tibi* Gif.

178 *teratur* Junt. most properly for *feratur*. 179 *tendunt* Lamb. for *tendit*. Lach. puts this verse after 175, reading *tendat* and *momine* for *numine* with Junt., a change which I am not now inclined to acquiesce in: see II 632. 190 *fulgere* AB Nic. Nicc. Flor. 31 Camb. 3 Vat. *fulgure* 2 Vat. Brix. Ven. eds. before Lach. 198 201: in my small ed. I allowed by accident Lachmann's punctuation to stand. Of course there should be a comma after *si* and after *sese*, the apodosis beginning at *Quid quae*. 203 in small ed. I placed with Bern. after 188. *caelum*. *circum* Lach. 205 (195) Lach. first transferred to its right place. 206 *Quone*. *Nonne* B corr. vulg. 211 *diu* AB Nic. Nicc.: the genuine form. *divo* vulg. before Lach. 213 *mundi*. *mundo* Lach. but here, as I 1060 and IV 418, he seems not to feel that Lucr. calls the reflected image a *mundus:* a quite natural notion. 216 *mira*. *mitti* Lach.; but Lucr. is here speaking not simply of the emission of images, but of their enormous velocity. I therefore keep *mira*, and suppose with Purmann Jahn's Jahrb. vol. 67 p. 676 and Goebel obs. Lucret. p. 25 that a verse is lost. 218 *fluunt* Lamb. rightly, as VI 924, for *fluant*. This and the ten following verses, which are repeated in the sixth book, were undoubtedly read in the fourth by Gellius and Nonius. There is no question therefore that Lucr. or his editor placed them here; there is just as little question that they are much more appropriate in VI than here. 229 is ejected by Lach. here and in the sixth book. It must I think be retained in both places; for to say that we always perceive all things is a simple absurdity: we always have sensation, and may at any time, *if we please*, exert the sense of sight smell hearing: again *Perpetuo...et omnia semper* would be an intolerable tautology.

240 *didita* Ald. 1 Junt. for *dedita*. 245 *curat*. *cogit* Lach. because, with *curat*, *internoscere* would stand he says for an accusative, and in that case Lucr. would make it govern another accusative, though he allows that Ennius does not observe such a law, as in *audere repressit*: a somewhat far-fetched distinction: see notes 2. 246 *protrudit* Lamb. for *protudit:* so 280. *procudit* Flor. 31 Camb. etc. Flor. 29 reads with Nic. Nicc. *protulit:* Politian in marg. has *pròtudit;* in 187 he wrote *rt* over the *c* of *cuduntur*. 250 and 251, 260 and 261: Ald. 1 Junt. first have these verses in their right order. 260 (261) *privam* Gif. for *primam;* 'ex v. c.' he says.

270 *semota* Ald. 1 Junt. for *remota:* so 288. *remmota* B, which may be right. 271 and 278 *quae vere transpiciuntur*. Lach. possessed by his theory of *quod genus* (see II 194) without any authority reads *sunt*, *bene* for *vere*, and ruins the argument in my opinion: see notes 2. 275 *tum cernitur*. *cum* Nic. Nicc. Flor. 31 Camb. etc. which has caused much confusion in the eds. before Lach. 277 *perterget* Lamb. first for *perteget:* (so *perteget* AB in 249; but there *perterget* Nic. Nicc.) *pertinget* Nic. Nicc. and so all before Lamb. 283 *ubi speculum* Junt. for *ubi in speculum*. 284 *in idem* Ed. for *in eum:* *id* was absorbed by *in*, and *em*

was then changed to *eum*: *in* was lost after *id* in IV 1037. *iterum* Lach. 290 *Illic quor reddant* Ed. for *Illis quae reddunt*. Lach. puts this verse after 270, where it is quite out of place: from 107 it is manifest that the images, not the real things, 'reddunt speculorum ex aequore visum.' Lamb. and Creech think 289—291 spurious: Wak. as usual sees no difficulty in the ms. reading and boldly calls in the Pythagoreans to the rescue. 299—347 (323—347 299—322) were first placed in their proper order by Lamb. after B corr. This is one of the main passages which enabled Lach. so acutely to determine the number of lines in a page of the lost archetype of all our mss. These 49 verses + three headings amount to fifty-two or twice twenty-six; that is to say the original ms. had twenty-six lines in a page, and by some chance one leaf, the 68th, had its pages inverted; hence the transposition: see introduction p. 20. The marg. of Flor. 29 gives in the writing of Politian apparently the same order as the Junt. viz. 298 323—325 299—322 348—352 326—341 353—363 342—347 364 of the ms. order, or that on the left of my edition: did Junt. get this arrangement from Politian? 300 (324) *Fiet ita, ante* Lach. for *Fiet ut ante*. *Fiet ut...hic idem* Ald. 1 Junt. 303 (327) *sexve* Junt. for *sex*. *aut sex* Lach. 304 (328) *latebunt* Ald. 1 Junt. for *latebit*. 310 (334) *Inde retro rursum redit et convertit eodem* A. *convertitur* Lach. for *convertit*: so 295 and 317 (341). *retrorsum* B A corr. for *retro rursum* has caused much confusion in old eds. 318 (342) *porro pariter* A Nic. Nicc. Flor. 31 Camb. etc. *pariter porro* B. 321 (345) *nequeunt*. *nequeant* A Nic. Nicc. wrongly.

342 (317) *illius* Flor. 31 Camb. Ver. Ven. for *ullius*. 345 346 (320 321) *aer Ater* Bern. for *Ater*. *ater, Aera* Lach. *ater Continuo r. s. adaperta s.* Flor. 31 Camb. vulg. without meaning. 351 *que vias* B corr. Flor. 31 Camb. for *quia*. 352 *coniecta* Ald. 1 Junt. for *contecta*. *movere* Bentl. rightly for *moveri*. 357 *acies* B corr. Nic. Nicc. for *ates*. *perlabitur* Lamb. ed. 3 first for *deriabitur*; from whom Gif. ed. 2 took it without acknowledgment. *derivabitur* Nic. Nicc. etc. *delabitur* Avanc. *illabitur* Junt. *adlabitur* Lamb. ed. 1 and 2. *arlabitur* Gif. ed. 1. 361 *tornum* Flor. 31 2 Vat. Brix. for *turnum*. *tortum* Camb. *terantur* Ed. for *tuantur*. *tuamur* Lach. but *ad tornum* has no sense or construction with *tuantur* or *tuamur*, as Lamb. saw, who reads *tornata ut* for *ad tornum*, a violent change. 378 *abluit* Brix. (?) Ver. Ven. for *adluit*.

395 *videntur* Lach. for *videtur*, as plur. *ea* follows. In small ed. I thought that after 397 a verse was lost of this nature, *Fallere saepe animum simili ratione videmus*; but see notes 2. Lach. reads *Exstant usque* for *Exstantisque*. 406 *tibi tum* Nauger. first for *ubi tum*. 414 *conlectus* Lamb. for *coniectus*: see III 198. 418 A has properly *ut* before *videare*: 419 *Corpora* AB has no sense: I have therefore written *Cetera mirando* for *Corpora mirande*: a very slight alteration. Flor. 31 has *mirando*; Nic. Nicc. Camb. etc. *miranda*. Lach. seems to have misapprehended the matter, as in 213 and I 1061: he reads *Ut prope miraclo* for *Corpora mirande*, *caeli* for *caelo*, and transposes the two verses. But I have obeyed him in reading *dispicere* for *despicere*, as ms. authority is of little weight on such a point: comp. 421 *dispeximus* AB Nic. Nicc. for *desp*. Virgil's mss. both in Aen. I 224 and georg. II 187 are nearly all in favour of *despicere*. Ph. Wagner philologus XV p. 352 quotes on

the side of *despicere* Quintil. inst. VI prooem. 4 'nullam terras *despicere* providentiam;' but on referring to Zumpt ed. Spald. suppl. annot. I find that the best ms. Ambros. 1 and Turic. p. m. have *nulla in terras despicere*, another *terras dispicere:* this passage therefore will not refute Lachmann's position that *dispicere nubila* or *despicere in nubila* is 'to look upon the clouds,' *despicere nubila* 'to despise the clouds:' comp. for the former sense III 26 *quin omnia dispiciantur;* IV 421 *in rapidas amnis despeximus undas;* for the latter II 9 *Despicere unde queas alios.* AB on the whole support this distinction. But see Prof. Conington to Virgil l. l.: he keeps *despicere.* Lamb. reads *videre et Corpora mirando s. t. a. c.* but in ed. 3 he obelises *et* and the following verse. 421 *despeximus* Flor. 31 Camb. Ver. Ven. vulg. rightly for *dispeximus.* 437 *fractis* Flor. 31 for *factas. undae* Lach. for *undas. undis* vulg. 440 *liquorem* Lach. for *liquore.* 446 *ac vera ratione* Is. Voss. in ms. notes for *aque ratione:* the scribe wrote *ra* only once: 'quidam codices' says Creech: that is he had heard indirectly of Vossius' correction. 448 *fit uti* Junt. for *fit ut.* 456 *videmur* Ald. 1 Junt. for *videatur.* 460 *noctis* B corr. Flor. 31 Camb. for *montis.* 462 *mirando* Flor. 31 Vat. 1136 Othob. for *mirande. miracli* Lach. here as 419. 467 *aegrius est*: later mss. and old eds. also Ald. 1 Junt. Lamb. etc. *egregius*, absurdly. 468 *addit* A Nic. Nicc. Camb. 2 Vat. Junt. Creech rightly. *abdit* B Flor. 31 3 Vat. Ald. 1 Lamb. Wak. without meaning.

471 *mittam* Ald. 1 Junt. for *mituam.* 472 *sua in statuit* Lach. for *suo in statuit.* 479 *sensus* Junt. for *sensu.* 486 *poterunt* Flor. 31 Camb. for *poterit. poterint* Ver. Ven. 491 *seorsum* Bentl. for *videri:* a necessary change. Lamb. here interpolates a verse. 493 *videre* Lach. for *necessest* which has come from a neighbouring verse. 495 *Nascuntur* Ver. Ven. for *nascantur.* 496 *possint* Flor. 31 Ald. 1 Junt. for *possunt. possent* Camb. 498 *aequa* Flor. 31 Ald. 1 Junt. for *aeque.* 500 *poterit* Nic. Nicc. for *poteris.* 517 *Prava* Ald. 1 Junt. for *parva.*

526 *vocem* om. AB Nic. Nicc.: rightly inserted by Lach. before *quoque enim:* Flor. 31 Camb. vulg. place it after. 528 *Praeterea radit* A and Gellius x 26 1 Vat. Avanc. rightly. *Propterea radit* B. *Praeter radit* Nic. Nicc. 1 Vat. Ver. Ven. whence *Praeter radit enim* Flor. 31 Camb. 3 Vat. Brix. Nauger. vulg. *Praeter enim radit* Junt. 532 *expleti* Lach. for *expletis,* thus simply healing a desperate passage. *raditur* B Politian in marg. Flor. 29: (*creditur* in text). *reditur* A Nic. Nicc.; hence *redditur* Flor. 31 Camb. vulg. and to give a meaning to the passage, Junt. adds a verse *Rauca viis, et iter laedit, qua vox it in auras;* Avanc. taking *oris* as a plur. thus *Rauca suis, et iter reddit qua vox it in auras.* 542 543 (551 552) rightly placed here by Lamb. first. 543 (552) *levo letiore* AB. *levis levore* Ald. 1 Junt. *laevor laevore* Lamb. 545 (543) *murmure* Brix. Ald. 1 Junt. for *murmura.* 546 (544) *Et reboat raucum regio cita barbara* Lach. for *Et revorat raucum retro cita barbara:* the older readings are mostly too absurd to be mentioned. *Berecynthia barbara* Is. Voss. in ms. notes and in Catullus: *Berecynthia cornua* Bentl. 547 (545) *Et valadis cycni torrentibus ex Heliconis* Is. Voss. in mss. notes for *Et validis necti tortis ex Helioonis* of A: the middle words of this line, as of the preceding, were mutilated by some accident. *Et cycni tortis convallibus* Lach. *nete tortis* B A corr. *nece tortis* Nic.

Nicc. etc. Hence a vast variety of strange readings, such as *Et gelidis cycni nocte oris* of Bern.

551 (549) *verborum* Lamb. for *nervorum*. 553 'lego *una*, unaquaeque vox perveniat. B' Bentl. for *illa*. 560 *illam*. *illa* Ald. 1 Junt. *hilum* Lamb. without cause. 563 *verbum*. *peditum* Nic. Nicc. and all later mss. and early eds.: hence *edictum* Ald. 2 Junt. vulg.: *peditum* came from the *pedita* of 562 catching the copyist's eye. 567 *verbi* Lach. for *verbis:* a necessary change. 568 *auris incidit*. '*aureis accidit*. sic reposui, a Plauto et ceteris Latini sermonis auctoribus admonitus' Lamb.; and Lach. thinks he is probably right, as Lucr. himself v 608 uses the same construction. 570 *locis* B corr. for *lopis*. *lapis* Nic. Nicc. Lach. as I now think without sufficient reason separates *solidis adlisa* from *locis*. 577 *vocis:* see n. to I 744 *frugis*. *voces* Lach. vulg. 578 *ipsi*. *ipsis* 1 Vat. Ver. Ven.: hence Ald. 1 Junt. vulg. before Wak. wrongly. 579 *docta referri* Lach. for *dicta referri*. *dicta referre* Junt. vulg. *icta referre* Bentl. 587 *velamina* Nic. Nicc. Flor. 31 Camb. vulg. for *ullamina*. *vallamina* Heins. in ms. notes, Is. Voss. in ms. notes, Wak. 590 *Cetera* Flor. 31 Camb. for *Petere*. 594 *nimis auricularum*. *nimi' miraclorum* Lach. after Bentl.: this is now the third time he has introduced into his text the form *miraclum*, which is not once found in the mss. of Lucr.: whence got the scribes such a hatred of the word?

598 *videmus*. *ubi demus* Lach.: but *Conloquium clausis foribus videmus* = *C. cl. f. fieri v.* and is not the same thing at all as *Conloquium videmus*. *Cum loquimur clausis foribus, quod saepe videmus* Junt. 604 *ubi una* B corr. Lamb. most truly for *ubina*. *ubi nam* Nic. Nicc. etc. *ubi iam* Ald. 1 Junt. 605 *Dissuluit* B: see Plaut. miles 279 eds. Ritschl and Fleckeisen, Rhein. mus. n. f. VIII p. 451, Corssen I p. 314. *Dissiluit* A vulg. Lach. 608 *fervunt* Ed. for *fuerunt*, transposing one letter. *feriunt* Lach. i. e. voces. *fuerint* Ald. 1 Junt. vulg. *subsunt* Bern. 610 *Saepem ultra* Bern. for *Saepe supra*. *Saepem intra* Lach. *Se Supra* Ald. 1 Junt. vulg. 612 *domorum* added by Lach. *viarum* Flor. 31 Camb. vulg.

615 *Nec* Junt. Bentl. Lach. rightly for *Hoc*. *qui*. *quis* of Junt. as Lach. says is not necessary. *Haec quis* Avanc. Lamb. Creech etc without sense. 616 *plus operaeve* Lach. for *plus opere:* better than *plus operaeque* or *plus operai* or *plusque operai* of others. 619 *ac siccare coëpit*. *exsiccareque coepit* Avanc. in Ald. 1 Lamb etc.; but at end of his Catullus Avanc. recalls this and says '*ac siccare cöepit* per diaeresin.' 621 *perplexa*. 'in Faern. neque *perplexa* neque *per plexa*, sed *per flexa*' Lamb., rightly perhaps; for Lucr. elsewhere applies *perplexa* only to the entangled atoms, never to the passages of things; yet Virgil has *perplexum iter omne revolvens*. 622 *manantis* Junt. first for *manantes*. 624 *sudantia*. *sidentia* Lach. an elegant, but not I think necessary, change. 627 *fine*. *in fine* Lamb. etc. wrongly. 631 *possis* Flor. 31 Camb. (not Nic. Nicc.) Ver. Ven. for *posses*. 632 *umidulum* Lach. for *umidum*. *humectum* Ald. 1 Junt. vulg.

633 *cibu' suavis et almus* Ed. for *cibus ut videamus:* see Camb. Journ. of phil. I p. 41: for *almus* perhaps *aptus* with Lach. *cibus unicus aptus* Lach.; but *unicus* is not at all appropriate. 636 *in* added by Nonius p. 95, and *est* at end of verse rightly om. by the same. 637 *ali*

Lach. for *aliis*. 638 *Esse ita quit serpens* Ed. for *Est itaque ut serpens. Est aliquas ut serpens* Lach. *Est utique ut s.* Junt. Lamb. ed. 3. *Saepe etenim s.* ed. 1 and 2. 642 *Ut quibus id* Lamb. ed. 2 and 3 for *Id quibus ut*. 648 *et. ex* Junt. Lamb. ed. 1 and 2 Lach. *constant variante figura* Lach. for *constant variantque figura. distant variantque figura* Lamb. ed. 3. 668 *ut* added by Flor. 31 Camb. only. *Ut* Lach. for *Fit*. 671 672 Lach. places after 662. Bernays supposes some verses to have been lost before them. I followed him in my small ed. but now believe there is no hiatus: see notes 2.

680 *Volturiique* Ald. 1 for *Volturique. Vulturiique* Junt. 681 *permissa* I. F. Gronovius for *promissa*. '*p̄missa* v. [not A or B] i.e. permissa i.e. immissa, concitata' Is. Voss. in ms. notes. 682 *Ducit. Dicit* Lach. without cause. 698 *creatum* Junt. first for *creatam*. 699 *quam vox. voci* Lamb. etc. perversely. 712 *rabidi* Wak. for *rapidi*.

727 *brattea* AB, not *bractea:* so mss. of Virg. Aen. VI 209. 730 *per rara* Ald. 1 Junt for *perara*. 735 *Omne genus* Junt. for *Omnigenus. Omnigenum* Nic. Nicc. and all before Junt. 736 *fiunt* Ald. 1 Junt. for *flunt* A, *fluunt* B A corr. 740 *anima* AB, *animai* Nic. Nicc. and all before Gif. *animalis* Lamb. ed. 3 vulg. Lach. *animantis* Gif. most properly, as Lucr. does not use the substantive *animal* in the singular, except V 823, where *omne animal* is equivalent to *omnia animalia:* see notes 2 there. 741 *ubi equi atque hominis casu. ubi equi casu atque hominis* Lach. who denies that the last syll. of an iambus is ever elided in Lucr. 752 *docui quoniam. quoniam docui* Lamb. ed. 2 and 3 etc. and Lach. *leonem* Lach. for *leonum. leones* Ald. 1 Junt. vulg. 755 *leonem et cetera* Lach. for *leonum cetera: et* was already added by Ald. 1 and Junt.: Lamb. Creech Wak. all blunder sadly here. 761 *Rellicta vita* Bern. for *Reddita vita,* and before him Is. Voss. in ms. notes '*Relicta vita*, malim tamen *Reddita* media producta ut Salmasius.'

783 *si terrast cordi* Ed. for *si terram cordist*. The frequency with which our mss. thus transpose this *st* is very remarkable: see Lach. to II 275 who cites ten instances: so 799, the repetition of 774, has *Tanta mobilitast. si terra est, si cordi* Junt. 791 *repetunt. referunt* Lach. 795 *Cum sentimus id, et cum* Ed. for *Consentimus id est cum*: a slight and necessary alteration. Lamb. and Lach. in vain declare the verse to be out of place: the latter puts it, thus altered *Quod sentimus, id est ?* cet. before 783, where it sadly involves the construction. 798 *sint* Flor. 31 Camb. for *sin* B, *in* A Nic. Nicc. *locis* Flor. 31 and Candidus at end of Junt. for *locos*. 799 800 801 = 774 771 772: an evident gloss here. Lamb. retains the first and rejects the two last; while he wrongly obelises the whole three in their former place, where they cannot be dispensed with. 802 *nisi quae contendit. nisi se contendit* Lamb. prompted he says by 809, and Lach.: but see notes 2. 804 *nisi si quae ad se ipse* Lach. for *nisi que ex se ipse. nisi sic sese ipse* Lamb. 805 *futurum* Junt. for *futuram*. 808 = 804. 815 *Praeterquam* Avanc. for *Praeterea quam*. 818 *non* Brix. for *nos*. 820 *vir uti* B corr. Flor. 31 Camb. for *virtuti*. *vir tunc* Nic. Nicc. *vir tum* Lamb. etc. 822 (826) brought here by B corr. Ald. 1 Junt.

823 (822) *avessis* Ed. for *inesse:* p. 171 of the archetype, the terminations of the lines therefore being towards the outer margin, ended with

827. By some chance then *s* the last letter of this line, and the three last, *mus*, of 826 were lost; *avessi* was then changed to *inesse, quea to via*. *vitium vementer rebu'necessesst* Lach.; a violent alteration. *inesto* Ald. 1 Junt. Gronov. *avemus Te effugere* Bern. 824 *errorem vitareque* B corr. Avanc. for *errore multareque*. *errore multas que premeditentur* Flor. 31 Camb. 1 Vat. corruptly for *e. v. praemetuenter* (*praemetuentur* A): this has led to further corruptions in Junt. Lamb. etc. 826 (825) *possemus* Lach. for *possimus*, as the usage of Lucr. requires. *queamus* Lach. for *via*: see above to 823: the vulg. *viai* has no sense. 830 *ex* added by Lach. *a* Ald. 1 Junt. vulg. 836 *nata*. *natum* Lach. as in 850: but as *nata* gives a good sense, I have retained it: it seems to me more elegant than the other.

862 *quas quia* Lach. for *quia*. *et quia* Vat. 3276 Brix. *haec quia* Wak. *his, quia* Ald. 1 Junt., *iis, quae* Lamb. wrongly. 863 foll.: by a better stopping I have made the passage quite clear: the apodosis of the sentence begins with *His igitur*. Lach. inverts 863 and 864. Comp. 203.

877 *fiat* Camb. Brix. for *flat*. 878 *varieque* Ver. Ven. for *vareque*. 884 *quisquam quam* Brix. for *quis quam*. 885 *Id quod*. *At, quod* Lamb. Gif. Creech etc. wrongly. *constat* Flor. 31 for *constare*. 890 *ferit* Ald. 1 Junt. for *perit*. 897 *Aeque id ut ac* Bern. for *Corporis ut ac*: this though somewhat uncouth I have adopted, because it seems manifest that *Corporis* has intruded itself from 896. *Corporis ut* Camb. Vat. 3276: also Lach. after Muretus. *Corpus uti, ut* Lamb. Creech. *velis ventoque*. *remis ventoque* Gassendi opera II p. 506 b, 'sic nempe sunt duae res seu causae impellentes navim, una ipsi navi inhaerens, alia accita extrinsecus; cum si legas *velis*, una solum sit, extrinseca videlicet, sicque claudicet comparatio'. 905 *pondere magno*. 'immo *pondera magna*' Lach. without I think good reason: comp. V 556.

915 *Tutimet* Ed. with AB Nic. Nicc. *Tutemet* vulg. Lach. 928 *posset* Lach. for *possit*. 929 *confiat* Lach. first for *conflat*. *confletur* Flor. 31 Lamb. vulg. 934 *eius*. *ab ibus* Lach. without just cause: see notes 2. 944 *fit uti* AB Nic. Nicc. Flor. 31 Camb. *sicuti* Brix. *sicut* Ver. Ven. *sic, ut* vulg. wrongly. 945 *Eiciatur* Lamb. for *Eliciatur*. 952 953, though perfectly sound, are much corrupted by Lamb. Creech vulg. Is. Vossius' ms. note is worth quoting, as Haverc. and Preiger misrepresent, and consequently Wak. and Lach. misapprehend it; 'omnino legend: *poplitesque cubanti Saepe tamae* [not *tama*] *summittuntur*. Tama quid sit docet Festus, cubantem vero tamam dixit quod deorsum ad pedes tendat. sic infra *cubantia tecta*. Idem error apud Nonium in versu Lucilii in voce *differre*, ubi pro *tama* legitur *tamen*.' 959 *partim* Lach. for *parte*: comp. 918. *porro* Ald. 1 Junt. vulg. 961 *in test* Ed. for *intus*: comp. 916 and 946, and *capias* in 957. *actus* Lach.

962 *quo...devinctus*. *quo...defunctus* Ald. 1 Junt. *quoi...devinctus* Lamb. without reason. 964 *in ea*. *in qua* Junt. vulg. wrongly. 968 *degere*. *cernere* Lamb. etc. 982 *consessum* Junt. for *consensum*. 983 *Scenaique* Brix. (?) Ald. 1 Junt. for *Scenatque*. 984 *voluptas* Lach. for *voluntas*. 989 *de palma summas* Lamb. for *palmas*. *palmis* A corr. Nic. Nicc. all before Lamb. 990 *saepe quiete* which mss. add at end has of course come from 991 (999) and supplanted the words of Lucr. *colli-*

gere aestum Lach. offers: *velle volare* might also do. 991 (999) was brought there by Ald. 1 Junt. 992 (991) *vocis*: see n. to I 744 *frugis*. *voces* Lach. vulg. 996 (995) *fugas* Ald. 1 Junt. first for *fuga*. 997 (996) *redeant erroribus* Lamb. after Turnebus for *redeant terroribus*. 1000—1003 are merely 992—995 repeated because of 991 (999): see introduction p. 22. 1005 *quo*. *quam* Lamb. wrongly. *seminiorum*. *semina eorum* Lamb. 'Marull. et vulg. semina eorum' says Gif. Junt. has rightly *seminiorum*. 1009 *que* wrongly added by Ald. 1 Junt. vulg. at end: see II 118. 1011 *motibus* Ald. 1 Junt. vulg. for *montibus*. *Magna* I join with what precedes. *Magna etenim* Junt. Lamb. wrongly. *mentes, magnis qui mentibus e M*. Lach. strangely. 1021 *Ut qui* A p. m. rightly. *Ut quasi* B A corr. Nic. Nicc. Flor. 31 Camb. all Vat. etc.: hence much confusion before Wak. 1022 *Externantur* Lach. for *Exterruntur*. *Exterrentur* vulg. 1026 *sei* Lach. for *se*: Junt. vulg. omit *se in* 1027, and 1028 insert *ut* after (Avanc. before) *saccatum*, and read *fundant* with Brix. (?) Ver. Ven. 1032 *quoque*. *quodam* Lach. without reason I think. 1034 *Qui* Lamb. for *Quae*. 1035 *Ut* Nauger. for *Et*. 1036 *cruentent* Flor. 31 Camb. for *cruentet*.

1037 *id in nobis* Flor. 31 Camb. Avanc. at end of Catullus for *id nobis*. *id e* Lach. *idem* Brix. Ver. Ven. Avanc. in Ald. 1. 1038 *adulta* B corr. Ald. 1 Junt. for *advita*. 1047 = 1034. 1057 *muta* A Nic. Nicc. Flor. 31 Camb. old eds. Junt. *multa* B Avanc. Nauger. Lamb. vulg. before Lach.

1058 *nomen*. *momen* Lach. most unpoetically; Creech more elegantly, but without necessity, *numen*: see Camb. Journ. of phil. I p. 35. Lach. also in the next verse wrongly puts a stop at *illaec*. *illaec* A corr. for *ille* A, *illa* B. *illace* Nic. Nicc. 1 Vat. *illa et* Flor. 31 Camb. 3 Vat. 1060 *frigida*. *fervida* Junt. (not Nauger.) Creech. 1061 *aves* Lach. for *ames*: most justly, unless you read *amas*. 1065 *conlectum*. *collectum* Junt. for *coniectum*. *congestum* Avanc. at end of Catullus.

1081 *adfligunt* A Nic. Nicc. Flor. 31 Camb. all Vat. rightly. *adfigunt* B Junt. Lamb. etc. 1083 *illaec germina* Lach. after a friend of Lamb. for *illas cermina* (?) A p. m. *ille germina* B. *illa haec* germina A corr. Nic. Nicc. etc.: see 1059. 1085 *refrenat* Nic. Nicc. for *frenat*. 1089 *cuius quom, Tum* Ed. for *cuius quam, Tam*. *cuius quo mage* Lach. *cuius quo pluria* Ald. 1 Junt. *quam pluria* Lamb. etc. which is not Latin. 1096 *raptast* Ed. for *raptat*. *rapta est* Vat. 3276, Candidus at end of Junt. Wak. *mentem spes raptat* Lach. *mentem spe lactant* or *captant* Bentl. 1098 *membris stinguere* Avanc. for *membri stinguere* or *membris tinguere*. 1115 *conlecta* Lamb. for *coniecta*. 1118 *quid* Lach. for *quod*: a necessary change.

1121 *viris*. *vires* Junt. first for *utris*. 1123 *Babylonica* Pius in notes for *Babylonia*. *vadimonia* Junt. vulg. before Lach. 1124 *vacillans* Junt. first for *vigillans*. *vacilans* Avanc. 1125 *Huic lenta* Ed. for *Unguenta*: see Camb. Journ. of phil. IV p. 287: the reading is of course quite uncertain: indeed *unguenta* may have come from *Languent* of 1124 and have expelled a totally different word. *Argentum Lach*. 1129 *fiunt* B corr. Ald. 1 Junt. for *flunt*. 1130 *atque alidensia chiaque* mss. *alideusia Ciaque* Lach. very ingeniously; but yet *alideusia* is not even a known Greek word. *ac Melitensia Ceaque* Lamb. after 'Adrianus Turne-

bus, seu potius Gul. Pellisserius, Episc. Montepessul'. *Cia:* so Cic. de nat. deor. I 118 *Prodicus Cius* Victorius: *chiuis* or *chius* mss. 1131 *ludi* A corr. Nic. Nicc. for *luidi*. *lychni* Lach.: but see notes 1; and V 295 from which it appears that Lucr. wrote *lŷchini* or *luchini* or *lichini*.

1141 *mala haec* Flor. 31 Camb. 2 Vat. for *male haec*. 1145 *inliciaris* Ald. 1, *ill:* Junt. for *inligniaris:* so III 553 *linguntur* mss. for *licuntur*. 1152 *Aut* Lach. for *Ut*. *Tum* Nauger. vulg. *si quam petis* Lach. for *quam praepetis* A Nic. Nicc. Flor. 31 Camb. *quam precis* B. *quam percupis* Lamb. 1156 *deliciis* Camb. for *delictis*. 1168 *At tumida* Bern. for *At iamina:* this I had myself seen many years ago on comparing Ovid ars II 661, where he is imitating Lucr. *At Lamia* Avanc. Lach. *At gemina* Lamb. vulg. 1174 *turpi* Nauger. rightly for *turpis*. 1176 *longe* Flor. 31 Camb. for *longi*. 1180 *iam ammissum*. *iam admissum* Lamb. for *iam missum*. *iam ammissu* Lach. *iam iussu* Bern. *iam immissum* Ald. 1 Junt. *veniens* Ald. 1 Junt. Lamb. ed. 1 Bentl. 1182 *cadat* Lamb. for *cadet*. 1183 *Stultitiae* Ald. 1 Junt. for *Stultitia*. 1188 *possis* Junt. for *posses*. 1189 *inquirere risus*. *in usus* Junt. *lusus* Candidus at end of Junt. *anquirere nisus* Lamb. Creech etc. 1191 *et* added by Lach. *Praetermittet te* Junt. Lamb. etc.

1198 *possent*. Lach. reads *possunt*, and refers *quod illorum subat* to the male. 1200 *salientum* Ald. 1 Junt. for *sallentum*. *retractat* Lamb. ed. 2 and 3 first for *retractant*. 1201 *etiam* om. Nic. Nicc. Flor. 31 Camb. 2 Vat. Brix. Ver. Ven. *memi* 1 Vat. *illos* 2 Vat. 1202 *vinclis* Ald. 1 Junt. first for *vinciis*. 1203 *quam* Lach. for *cum*. *quin* Junt. Lamb. ed. 1 and 2. *non saepe* Lamb. ed. 3 Creech. 1204 (1210) first brought here by Lamb. 1207 (1206) *lacere* Lamb. and above 1146 *laciamur*, without cause.

1210 (1209) *vim vicit* Salmasius for *vi mulcit:* a certain correction, which Wak. and Lach. justly adopt: the older readings are not worth mentioning; Lamb. in vain tries to extricate himself: it appears from 500 instances that in our archetype, as in other mss. written in square capitals, *l* and *i* were often undistinguishable. 1220 *multa modis* Lamb. ed. 2 and 3 for *multimodis;* and, although the Junt. has *multimodis* in the text, it would appear from his note at the end, that Candidus intended to print *multa modis*. 1222 *ab* Lach. for *a*. 1225 1226 (1227 1228) I have transferred hither, the sense requiring the change. 1227 *de* added by Flor. 31 Junt. *a* Avanc. *magis*. *minus* Lamb. followed by all before Lach. 1230 *quodcunque* Flor. 31 Camb. Ver. Ven. for *quocumque*. 1234 *pater a gnatis* Brix.? Ald. 1 Junt. for *praeter agnatis*.

1243 *cedit* Ald. 1 Junt. for *credit*. 1244 *his* Lach. for *hic*. 1252 *post sunt* Lamb. first for *possunt;* though Lucr. probably wrote *pos sunt:* comp. 1186 *poscaenia*. 1259 *Crassane* Ed. for *Crassaque;* as *refert conveniant* does not seem Latin any more than III 868 *differre fuerit*, and *que* is quite superfluous. *conveniant* Ald. 1 Junt. for *conveniunt*. 1261 *aliis* Ver. Ven. for *alii*. 1268 *Nec* Ald. 1 Junt. for *Ne*. *Non* Camb. 1270 *retractat* B. *retractet* A and all other mss. and eds. before Lach. 1281 *modis* Junt. first for *moris*. 1282 *te secum* Bern. for *secum*. *secum nos* Lach. *vir secum* Flor. 31 Camb. vulg. 'Italice magis quam Latine' says Lach.

BOOK V

2 *maiestate hisque repertis* Lamb. for *maiestatis atque repertis:* he proposes also *maiestate atque r.* *maiestatisque repertis* Nic. Nicc. and all before Lamb. 12 *locavit* Nic. Nicc. for *vocavit.* 29 foll. Ald. 1 Junt. and all succeeding eds. invert 30 and 31; I transpose 29 and 30: again Ald. 1 Junt. and all before Lach. insert between *nobis* and *Stymphala* the words *uncisque timendae Unguibus Arcadiae volucres.* Lach. weakly reads *et aves* for *nobis.* I have no doubt a verse has fallen out before 29 (30), beginning with *Quid:* such for instance as this *Quid volucres pennis aeratis invia stagna.* 31 *Thracis* Ed. for *Thracia. Thracam* Lach. *Thracen* Ald. 1 Junt.: see Camb. Journ. of phil. I. p. 44. 34 *stirpem* Nauger. (*stipem* Junt.) for *stirpes.* 35 *Atlanteum* Gif. (*Atlantaeum* Lamb. and Turneb. first) for *Atianeum. Oceanum propter* Nic. Nicc. strangely, though he has been followed by many. *pelageque* Lamb. for *pelagique. severa. sonora* Nic. Nicc. (not Flor. 31 or Camb.) Brix. Ver. Ven. Ald. 1 Junt. Nauger. Lach.: but to me it seems much weaker than *severa.* 38 *Sei* Lach. *Si* Nic. Nicc. for *Sed.* 44 *tumst* Lach. for *sunt. tunc* Lamb. Gif. ed. 1. Lamb. ed. 3 remarks 'hunc locum Zoilus...secutus est tacitus et dissimulans, tamquam integrum in aliis libris repertum et non a me emendatum': Gif. then ed. 2 reads *pericula est,* and says 'sic scripsi. in o. v. *sunt.* Marull. et vulg. *tunc*': now when Lamb. had so pointedly drawn attention to it, Gif. must have been a most impudent liar, if he did not find *tunc* in Marullus' ms. notes: Junt. reads *sunt.* 51 *numero divom. divum numero* Lactantius. 53 *Immortalibus* Flor. 31, *Inmortalibus* B Camb. *Iam mortalibus* A Nic. Nicc. etc.: comp. III 775. *de* Lamb. for *e.*

61 *incolumis* Junt. for *incolumen* A, *vinculum est* B, *incolumē* Camb. 71 *Quove. Quoque* Nonius, contrary to the use of Lucr. 114 *Religione* Nic. Nicc. Ver. Ven. *Relligione* AB in this place only, Flor. 31 Camb. 116 *manere* Junt. for *meare.* 117 *par* Junt. for *pars:* comp. 881. 122 *a numine distent* Flor. 31 Camb. Brix. for *animinbistent. animilastent* Nic. Nicc. Ver. Ven. 133 *longiter. longius* mss.: see III 789. 134 foll.: see III 790 foll.

152 *quod* Junt. first for *quod si.* 154 *pro corpore* Lamb. for *de corpore. tenuest si corpu' deorum* Lach. a violent change, as four words are altered. *tenues ceu corpora eorum* Ed. in small ed. 162 *ulla vi ex. ullum de* Lamb. Creech etc. most gratuitously. 163 *summa. summam* Lamb. etc. 170 171 (175 176) rightly brought here by Lach. Lamb. put them before 176 (174). 170 *At* Lach. for *An:* a necessary change. 182 *divis hominum unde est* Ed. for *hominum divis unde est. hominum dis unde est* Wak. Lach. *est* om. Ald. 1 Junt. Lamb. etc. *divisum deest* Nic. Nicc. Ver. Ven. 185 *sese* Brix. for *se.* 186 *specimen* Pius in notes for *speciem.* 187 *multa modis* Lamb. ed. 1 and 2 rightly for *multimodis;* but ed. 3 again *multimodis:* see 422. 191 *possent* for *possint* Lach. rightly, as 426. 193 *meatus* Flor. 31 for *maestus.*

195 *si* added by Ald. 1 Junt. 201 *avidei partem* Ed. for *avidam partem. avide* Bern. *aliquam* Lach. 'Marull. *aliam* pessime' Gif.: but

Junt. as Ald. 1 has *avidam*. 227 *restet transire* Lactant. and Nic. Nicc. for *re et transirest*, that curiously frequent blunder of AB: see IV. 783. 239 *eodem omnis* Gif. rightly for *eadem omnis*, and before him the Paris ed. of Pius. *tota eadem* Lamb. 241 *nàtivo ac mortalibus* Lach. for *nativom mortalibus:* not Naugerius who has *nativo mortalibus*. *nativo et mortalibus* Avanc. in notes at end of his Catullus, and vulg. 245 *item* Bentl. for *idem*.

248 *Me mihi* B most rightly. *Memini* A. *Memmi* vulg.: hence Lamb. *me arripuisse* for *corripuisse* in 247. Wak. not fearing the solecism, finds fault with previous editors, and reads *corripuisse* and *Memmi*. 251 *non nulla* Nic. Nicc. Camb. Ver. Ven. for *non ulla*. 257 *alid* Lamb. ed. 1 and 2 for *alìt* rightly; ed. 3 he restores *alit*. 258 *Redditur*. *Roditur* Junt. Lamb. vulgo before Wak.

282 *recenti* B corr. Flor. 31 Camb. for *regenti*. 291 *Et* Ald. 1 Junt. for *Ut*. 295 *lychini* Ed. for *lyclini*. *lychni* A corr. Nic. Nicc. Macrob. Lucr. seems to have known only the trisyllabic form, whether he wrote *lychini* or *luchini* or *lichini;* or even one of the still older forms *lucini* or *licini*. Ritschl in Rhein. Mus. n. f. x. p. 447—451 shews that Enn. ann. 328 wrote *lucinorum lumina bis sex;* Lucilius *lucinosque* or *luchinosque:* so *dracuma*, *mina* (μνᾶ), *tecina* (τέχνη), *cŭcĭnus* or *cicinus* (κύκνος), and other like forms all arising from the dislike of the old Latins to certain combinations of consonants: comp. *Aesculapius Alcumena Hercules* and many such like. Lucr. or his editor may have written *y*, as it was introduced for Greek words just before his death: the aspirated *ch* was in common use some 40 years earlier, as Ritschl proves. 296 *caligine*. *fuligine* Bentl. and Wak. from a sheer misunderstanding of Lucr. 297 *properant* Ald. 1 Junt. for *proferant*. 301 *celeri celatur* Madvig and Lach. for *celeri celeratur*. *toleratur* Nic. Nicc. Ver. Ven. vulg. 302 *putandumst* Lach. for *putandum:* see I 111.

312 *Aeraque proporro solidumque senescere ferrum* Ed. for *Quaerere proporro sibicumque senescere credas:* see Camb. Journ. of phil. I p. 373 and IV p. 142. *Aeraque* and *solidumque* are simple enough corrections. *credas* in this, the 12th line from the end of p. 204 of the archetype, has come from *credis*, in the 12th line from the end of p. 205, and has supplanted Lucretius' word *ferrum*. All older corrections of this verse are strangely improbable: *Quas fore proporro vetitumque senescere credas* Lach. *Cedere proporro subitoque senescere casu* Junt. Lamb. ed. 1 and 2 Creech. Lamb. ed. 3 obelises this and adds the ms. verse. Is. Voss. (not Abr. Preiger) in ms. notes has *Quae ruere proporro ibi conque senescere credas*. [*Quare proporro sibi cumque senescere credas*] Bern. Gif. and Wak. find no difficulty in the ms. reading. 318 *omnem* Junt. for *omne*. 319 *si* om. Nic. Nicc. and all later mss.: hence much confusion in eds. before Lach. Havercamp not deigning to record that AB both had *si*. *omne.. terrai* Avanc. *terram, quod* Junt. vulg. 331 *Naturast mundi* Ald. 1, *Natura est* Junt. for *Natura mundist:* this common blunder of our mss. Wak. here keeps. 339 *periisse* Flor. 31 for *perisse*. 342 *atque oppida* Flor. 31 Camb. for *at oppida*. *ac* Nic. Nicc. 2 Vat. Brix. Ver. Ven. Wak. 349 *isdem* Pius in notes, Lamb. for *idem* which Lach. keeps: see II 693. Lach. was the first to join *inter nos* with what follows.

359 *fit* Lach. first for *sit.* 367 *coorta* Ald. 1 Junt. for *coperta.* 368 *Corruere. Proruere* Lamb. etc. 382 *certaminis ollis* Flor. 31 Camb. for *certamini solis.* 386 *ultraque. ultroque* Flor. 31 Camb. vulg. 393 *inter se* inserted by Lach. before, by Nic. Nicc. Flor. 31 Camb. vulg. after *de rebus.* 396 *superat* (perf.) *et lambens* Lach. for *superavit et ambens. lambens* B corr.: nor has *ambens* any existence, whether as partic. of *ambedo* or *ambio.* 399 *tum* Flor. 31 Camb. for *cum.* 405 *Graium* Flor. 31 Camb. for *gratum. graium* (*gratum*) Ver. Ven. 409 410 Lach. by a strange misapprehension inverts these verses and for *Aut pereunt* reads *Et pereunt.* 412 *urbis* (*urbeis*) Junt. for *undis.* Flor. 31 Camb. Ver. Ven. etc. keep *undis*, and for *hominum multas* read *hominum multos.*

428 *Omne genus* Lach. for *Omnigenus. Omnigenos* A corr. vulg. 429 *convecta* Lach. for *conventa. T. c. quae ubi convenere* Lamb. ed. 1. *T. ea c. quae ut convenere* ed. 2 and 3, followed by Creech, etc. 430 *fiunt* Flor. 31 Camb. for *fluunt. saepe. semper*, as II 1062, Lach. without sufficient cause.

432 *largo. claro* Macrob. 433 *Altivolans* Avanc. and Macrob. sat. VI 2 23 for *Alte volans. Alta volans* Junt. 437—442 (440—445) are thus arranged by Lach. after Reisacker quaest. Lucr. last page; and the necessity of this change is manifest, though Macrob. l. l. evidently read them in the order in which they appear in our mss. See what I say on this and similar points p. 22. 437 (440) *Omne genus de* Lach. as before, for *Omnigenus e* B, *Omnigenis e* A Nic. Nicc. vulg. 446 *altum. magnum* Macr. 447 *umore* (*humore*) Macrob. B corr. Vat. 3276 Junt. for *umor. humorque* Nic. Nicc. Flor. 31 Camb. 4 Vat. Brix. Ver. Ven. Avanc.

459 *Ignifer. Signifer* Ver. Ven. Ald. 1 Junt. Lamb. etc. on no ms. authority, though Lamb. falsely says all mss. have it. 460 463 *videmus* .. *Exhalantque. videntur* .. *Exalare Lach.*: a change which only impairs the beauty of the passage. 468 *flexit* Lach. for *saepsit*: *saepsit* has come from 470. 471 *secuta.* '*secuta et* Y' (i.e. our A) says Havercamp. This is quite false: though he had A and B before him, he has chosen to copy out this, as well as three fourths of his worthless various readings, from the bookseller Tonson's London ed. of 1712, which gives 'collationes trium ms. codicum Vossii a R^do^ Viro R^to^ Cannon S. T. P. factas': this collator says 'secuta, &. V. 1.' Haverc. copies even the comma and the & into his ed. This is but one of a thousand instances of his unprincipled sloth. 472 476 *Interutraque* Lach. as before for *Inter utrasque.* 474 *fuerunt. fuerint* Avanc. and strange to say Lamb. who made it the vulg. before Lach. 482 *salso suffudit* A corr. Lamb. for *salsos offudit. salso suffodit* Nic. Nicc. Flor. 31 Camb. etc. Wak. 485 *extrema ad limina in artum* Ed. for *extrema ad limina partem*: the scribe neglected to write *ina* twice, and to fill up the verse wrote *partem* for *rtum. extrema a limini' parte* Lach. who connects this verse with the next. *extrema ad limina apertam* Lamb. *e. a. l. raptim* Bentl. *radiis* for *radii* Nic. Nicc. Camb. *lumina* Nic. Nicc. Flor. 31 Camb. etc. 491 *Densebant* Lamb. Lach. for *Densabant*, and rightly, as our mss. in all other places make it of the 2nd conjugation: see Wagn. to Virg. geor. I 248. 503 *Commiscet* Nauger. first for *Commisci. haec. hic* Bentl. and Lach. which I do not think at all necessary. 507 *Pontos*,

mare Lach. for *ponto mare*. *Ponti mare* Lamb. ed. 3. *tantum mare* ed. 1 and 2. 513—516 Lach. quite misapprehends and sadly mutilates this passage: 513 he reads *deorsum* for *eodem*, 515 *Hinc* for *Aut;* and places 514 after 516: not one of these changes but mars the sense. 515 *Aut*. *Ast* Nauger. vulg. wrongly. *qui* Nauger. rightly for *quis*. 518 *lucida* Flor. 31 Ver. Ven. for *lucia*. 521 *immania* Creech in notes for *summania;* the ms. reading is strange. *se immania* Avanc. in notes at end of Catullus, Lamb. 524 *euntis*. *aventis* Lach. 530 *omne* B corr. Ald. 1 Junt. for *omnem*. 531 *sit in hoc quoque causa* Ed. for *sit et haec quoque causa*. *siet haec* Lach.: but *haec* has no force and has come from the neighbouring *causa*. *siet hic* Bern. 532 *vegeat* Gif. for *vigeat*. 533 *progredientis* Lamb. for *progredientes: est* for *licet* is not Lucretian.

536 *supter*. *subter* Flor. 31 Junt. for *super*. 538 *vivit*. *crevit* Lach. *sidit* Lamb. ed. 2 and 3 'ex antiquae scripturae quae reperitur in codice Bertin. vestigiis' and Heins. notes that *s*, i.e. the ms. of Modius has *sidit*, unless I mistake his meaning: but Modius made his collation with the small 2nd ed. of Lamb. so that it is probably a mere oversight; for B has simply *vivit*. 545 *quid quaeque obeat res* Ed. for *quid queque quaeat res:* Lach. to I 222 gives more than 40 instances in which AB change *b* to *v:* when *obeat* became *oveat*, the further corruption to *queat* was inevitable with capitals. *aveat* Lach. *vehat* I. F. Gronovius and Is. Voss. in notes. *quoi quae adiaceat res* Lamb. 555 *uniter apta* Junt. first for *uniter aucta:* 558 *uniter apta* for *uniter rapta* B corr. Flor. 31 Camb. etc. as 537. 559 *pernici* Brix. Ald. 1 Junt. for *pernice*. *pernice attollere* Flor. 31: a mere conj. 560 *Quid* Lamb. in errata to ed. 3, Faber in his emend. for *Quis*. *animi* Lach. for *animae:* as 563. 563 *Coniunctus* Flor. 31 Camb. for *Coniuncta*.

567 *Adicere* (*Adiicere*) Lamb. for *Adlicere:* a confusion of which we have had so many examples. 568 *Nil illa his intervallis* Bern. for *Nihil nisi intervallis*. *Nil ea in his int*. Lach. *Illa ipsa intervalla nihil* Lamb. *Nilque nisi ex int*. Flor. 31 Camb. 3 Vat. *libant* Junt. for *librant*. *limant* Lamb. ed. 1 and 2. *librant* ed. 3. 570 (573) brought here by Ald. 1 Junt. 571 (570) *loca mulcent* Lach. for *loca fulgent*. *loca tingunt* Lamb. 572 (571) *filumque* Lamb. ed. 2 in notes and ed. 3 after Turnebus for *ilumque*. 574=571 (570). 581 *minui filum* Bentl. for *mi filum*. *minimum filum* Nic. Nicc. vulg. 584 *Quantaque quantast hinc* Eichstädt for *Quanto quoque quantast hinc*, and in the repetition 596 *Quanta quoque est tanta hinc*: 'qua emendatione' says Lach. 'effecit ut hic semel valde laudandus sit.' *Quantaque sit, nobis tanta hinc* Ald. 1 Junt. *Quanta haec cumque fuat, tanta hinc* Lamb. 586 *ignes* added by Ald. 1 Junt.: the *ignes* of 585 caused its omission. *horum* Flor. 31 Camb. *flammae* Lach. who says that *ignes* is an unmeaning repetition: but similar repetitions are very common in Lucr. 587 *est* added by Flor. 31 Camb. etc. 588 *videtur* A Nic. Nicc. Flor. 31 Camb. etc. and Lamb. ed. 1. *videntur* B Lamb. ed. 2 and 3, perhaps rightly. 589 *absunt* Lach. for *absit*: a necessary change. *cum longius absint* Lamb. 590 591 (594 595) first brought here by Ald. 1 Junt. 596=584.

598 *lumen*. *flumen* Avanc. Lamb. etc. without any authority. 599 *quia* AB. *qua* Nic. Nicc. Flor. 31 (Lach. is in error) Camb. all Vat. Brix. Ver. Ven. Ald. I Junt. *quo* Lamb. etc. *vaporis* Lamb. first for *vapore*.

605 *percipiat* Nauger. for *percipitat.* 609 *Accedere* A. *Accidere* B. *Accendere* A corr. Nic. Nicc. 2 Vat. Ver. Ven. *Accendi* Flor. 31 Camb. 3 Vat. Brix. Avanc. Nauger. *Accipere* Junt. Lamb.: see II 1025. 610 *et. e* Lach. who will never tolerate *et* for *etiam.* 613 *Aestifer ut tantum* Flor. 31 3 Vat. Junt. rightly for *Aestiferi utantum* B, *utantur* A Nic. Nicc. *Aestiferum ut tantum* Avanc. Lamb. etc. *Aestiferum tantum* Nauger.

614 *simplex et certa* Ed. for *simplex recta.* *simplex nec certa* Lamb. *simplex aut recta* Flor. 31 Camb. 3 Vat. *ac recta, et recta* others. *simplex rellata* Lach. *reclusa* Bern. 617 *Cancri se ut* Lach. for *Canceris ut.* 632 *etenim* Lach. for *etiam.* 648 *illa* Flor. 31 Camb. for *ille.* 651 *sol ultima* Camb. Vat. 1136 and 1954 Othob. for *solvet ima caeli.* *sol extima* Flor. 31 Ald. 1 Junt. etc. Politian in marg. Flor. 29 has both *ultima* and *extima.*

656 *Matuta* Ald. 1 Junt. for *matura.* 667 *possunt* Lach. for *possit. possint* vulg. contrary to the unvarying usage of Lucr. 675 *Fulmina* Ald. 1 Junt. first for *Flumina.* 679 *Consequë quoque iam redeunt* Lach. for *Consequiae quoque iam rerum*: a brilliant emendation. *Consequae* 2 Vat. Ver. Ven. *Consequa natura est iam rerum* Flor. 31 Camb. 3 Vat. vulg.

689—693: Lach. has quite causelessly altered this passage in many points: 690 for *metas* he reads *metans*, 692 and 693 he inverts, 693 for *obliquo* he reads *obliqui*, joining it with *orbis*: he will not have *serpens, lustrans* in apposition any more than 524 *euntis, pascentis;* or VI 1141 *veniens, ortus*, and 1260 *languens, conveniens;* though suchlike constructions are common in Lucr. and in Cicero in his Aratea which Lucr. often imitates. 692 *concludit* Lach. for *contudit.* *contundit* Brix. vulg. 704: it seems to me manifest that the poet alludes to 660—665, and that a verse is lost such as this, *Qui faciunt solis nova semper lumina gigni*: probably its resemblance to 703 caused its omission. Lach. strangely supposes the sentence complete and joins 704 with 703, as if anybody could ever deny that the sun rose in a certain quarter. 704 which by itself has no meaning was placed after 714 by Nauger. followed by all before Lach.

705 *percussa* Flor. 31 Camb. before Lamb. for *perculsa.* 706 *magis id lumen* Lach. for *magis lumen.* *magis hoc* Flor. 31. *maius* Ald. 1 Junt. vulg. *magis*: *et lumen* Nauger. 708 723 *Donique.* *Donicum* Lamb. wrongly in both places. 711 *iam* Ald. 1 Junt. first for *tam.* 720 *ut, si forte.* *ut sit forte* Lach. after J. Dousa fil. 'sine ulla causa et cum orationis sententiaeque detrimento' says Madvig emend. Liv. p. 123. 727 *Babylonica* Flor. 31 for *Babylonisa.* *Chaldaeum* Avanc. *Chaldeum* AB. *Chaldeam* A corr. Nic. Nicc. Flor. 31 Camb. etc. 733 *aborisci.* *abolisci* B corr. *abolesci* Junt. *aboriri* Brix. Avanc. *abolescere* Lamb. 736 *possint* added by Lach.: see 750: *videas* by Flor. 31 Camb. vulg. 737 *veris* Bentl. Wak. Lach. for *Veneris.* 738 *zephyrus* Ald. 1 Junt. for *zephyri:* the *-us* was absorbed in *vestigia.* 742 *Pulverulenta Ceres et etesia* Ald. 1 Junt. for *Pulverunta Ceres etesia.* 747 *Prodit* Lach. for *Redit.* *Reddit* Flor. 31 Camb. vulg. *crepitans* Flor. 31 Vat. Brix. for *creditans.* *hanc* B rightly. *ac* A. *accentibus algi* Nic. Nicc. Flor. 31 Camb. Vat. Junt. *algor* Lach. for *algi.* *algus* Lamb. 750

fieri Ald. 1 Junt. for *fleri*. *florere queant* 1 Vat. 753 *solis* Lamb. first for *possis*. *posces* Ald. 1 Junt. 761 *perire* Ald. 1 Junt. for *periri*. 768 *fulget*. *fulgit* Lamb. Lach. 771=764.

776 *possent* added by Brix. *soleant* (not *valeant*) Flor. 31 Camb. Ald. 1 Junt. Nauger. Lamb. Gif. Creech Wak. 782 *Tollere et* Ald. 1 for *Tolleret*. *crerint committere* Orelli ecl. poet. Lat. Madvig in Henrichsen. de frag. Gott. p. 36, Lach. all three independently for *credunt committere*. *tentarit credere* Lamb. 800 *maiora* Avanc. in notes at end of Catullus, Junt. first for *maiore*. 805 *primum*. *passim* Lach. without any necessity. 808 *terram* AB Nic. Nicc. rightly. *terrae* vulg. before Lach. 809 *aestus* Lach. for *aestas*. *aetas* Ald. 1 Junt. vulg. 823 *animal* Ald. 1 Junt. for *anima*. *animas* A corr. Nic. Nicc. all later mss. *animans* Wak.: but *animans* is feminine in Lucr. 824 *magnis* Flor. 31 Camb. for *magni*. 825 *Aeriasque* Ald. 1 Junt. for *Aeriaeque*. 833 *clarescit* Lach. for *crescit:* he also suggests *succrescit*, which may be right: or *tum crescit*. *concrescit* Ald. 1 Junt. vulg. *e* added by Ald. 1 Junt. 836 *Quod pote uti nequeat* Lach. for *Quod potuit nequeat*. *Quod tulit ut* Bentl.

839 *Androgynum, interutraque nec utrum, utrimque remotum* Lach. most acutely for *Androgynem inter utras nec utramque utrumque remotum*. *Androgynum inter utra* (also *inter utras*) *neutrumque utrinque remotum* is given by Candidus at end of Junt. and *utrinque* is in Brix. 841 *Muta* Nauger. for *Multa*. 844 *foret usus* Lamb. for *volet usus*, as IV 831. 852 *remissis*. *remissa* Lach. 853 *coniungi possit, habere*. *coniungi possit avere* Lach.: a most awkward phrase, as the wish of the female is not important. 854 *Mutua qui mutent* Bern. for *Mutua qui metuent*. *Mutua quis nectent* Ald. 1 Junt. *nectant* Nauger. Lamb. *Mutuaque insinuent* Lach.

859 *tutata* Brix. Ald. 1 Junt. for *tuta*. 863 *et fuga* B Avanc. *ut fuga* A Nic. Nicc. Junt. 865 *veterino* Nonius Avanc. Junt. *veteri non* mss. 868 *secuta* Lamb. in errata to ed. 3 first for *secutae*. 871 *nil* Ald. 1 Junt. for *ni* A, *in* B. 880 *potestas Hinc illinc visq. ut non sat par esse potissit* Ed. for *potestas Hinc illinc par vis ut non sat* (B, *sit* A) *pars esse potissit: par* I assume was written in the margin to take the place of the unmeaning *pars*, and thus got into the text: so above 117 *pars esse* mss. for *par esse*. *p. H. i. partis ut si par e. p.* Lach. which I hardly understand. Lamb. reads *queat* for *queunt* after Ald. 1 and Junt. joining *potestas* with what precedes, and ed. 3 has *Hinc illinc par vis ut non sic esse potissit*. *p. H. i. parilis quis non superesse potissit* Bern. 884 *hautquaquam* Nic. Nicc. for *hautquamquam*. *nam* om. by A Nic. Nicc. and later mss.: hence *quia* Avanc. *quin* Junt. Lamb. etc. *haut ita quamquam* Flor. 31 Camb. 885 *lactantia* Flor. 31 Ver. Ven. for *laetantia*. *quaeret*. *quaerit* Ald. 1 Junt. Lamb. 888 *puero illi* Ed. for *pu-erili*. *pueris* Avanc. Lamb. Lach.; perhaps Lucr. wrote *puero li*. 889 *Occipit* Ald. 1 Junt. for *Officit*. 892 *rabidis* Heins. in ms. notes, and Bentl. for *rapidis:* see IV 712. 896 *proiciunt* Lamb. in notes to ed. 2 and ed. 3, after Turnebus, for *proficiunt*. 901 *vero* added by Ald. 1 Junt. vulg. *Denique f. q.* Lach. *Ardua, Ignea* others. 904 *ut una* Brix. Avanc. for *ut unam*. *iuncta* Junt. 906 *foras* Nauger. for *feras*. *ferox* Junt. 914 *ponere* B corr. Junt. for *pondere*. *pandere* Avanc. 923 *Sed res quaeque* Ed. for *Sed si quaeque*. *Res sic* Lamb. *Sed vis* Lach.

925 *At* Lach. for *Et;* and the change seems necessary. 934 *molirier* Brix. Junt. for *mollerier.* 944 *dura* Vat. 3276 Nauger. for *dira:* a certain correction. *dia* Avanc. 947 *Claru' citat late* Forbiger for *Claricitati a te. Clarior accitat* Flor. 31 2 Vat. Ald. 1 Junt. Lamb. ed. 1 and 2. *Claricitat late* Lamb. ed. 3 after Sim. Bosius. *Clarior invitat* Politian in marg. Flor. 29. *Clarigitat late* Lach. who sneers at Forbiger: but in the first place *clarigito* or *clarigo* could not have the sense he assigns to it, and secondly *clarigito* is not and cannot be a Latin word, as is shewn by Ritschl in his proem. Bonn. for winter of 54-55, p. x: 'Lex est linguae, ut e verbis derivativis quae una syllaba auctiora sunt primitivis, non unquam nova derivatione verba iterativa fiant.... Multo magis cavendum ne novo *clarigitare* formae commento interpolentur, quod Lucretii versui v 947 Lachmannus adhibuit. Quod ne per se quidem, etiam si grammatica ratio non adversaretur, placere posset: tam non modo mira iuris publici ad communem usum translatio esset, verum etiam a propria vi clarigationis secus detorta: ut qua non res quaelibet quolibet modo repetantur simpliciter, sed raptae vel per vim retentae atque debitae sollemniter exposcantur'. He refers to Plin. nat. hist. XXII 5, and proposes himself *Largu' citat:* but *claru'* seems to me quite tenable. 948 *nota vagi silvestria* Lach. for *n. vagis s. noctivagi* Nauger. (not Junt.) and vulg. *nocte vagi* Bentl. 949 *quibus escibant* AB Vat. 1706 Reg. ('Nic. Heinsii'). *quibus e scibant* Lach. first after them. *aestibant* Nic. Nicc. *excibant* Camb. *exibant* Flor. 31 vulg. *umori'* Bentl. Lach. for *umore.* 968 (975) first brought to this place by Nauger. not Avanc. who like Junt. places it after 961. 970 (969) *subu' sic silvestria* Ed. for *subus silvestria: sic* could easily fall out in this position. *suibus* Camb. Ver. Ven. vulg.; but Lucr. uses *sūbus* in VI 974 977: Luc. Mueller de re metr. p. 350 defends *sūbus*, from Varro Eumen. 22 *An colubrae an volvae de Albuci subus Athenis.* Lach. deals with this passage in a most arbitrary way: he splits 970 (969) into two verses, supposes the end of one and the beginning of the other to be lost and inserts 968 (975) between them: thus *S. p. s.* [*ardorique leonum*] *M. s. e. m. p. c.* [*Inde cavis temere abiecti*] *s. m.*: a more unconvincing note than his I never read, or more sophistical objections to the present text. 971 (970) *Nuda dabant* Lamb. ed. 3 first for *Nudabant* which Wak. indignantly restores, making these simple sons of earth unclothe their naked limbs and rival the famed exploit of Prince Vortigern's grandsire. 984 *Eiectique* Flor. 31. Camb. etc. for *Electique* B, *Et lectique* A Nic. Nicc. 976 *rosea* Flor. 31 Brix. for *rotea.* 985 *validique. validive* Lach. but comp. 987 *hospitibus saevis* in plur.

989 *labentis* Muretus Lamb. Lach. for *lamentis.* 993 *vivo* Flor. 31 Camb. etc. for *vino.* 995 *ulcera* Flor. 31 Camb. for *vicerat. viscera* A corr. Nic. Nicc. Ver. Ven. 997 *Doniqae* Is Voss. in ms. notes, Lach. for *Denique. Doniquom* Heins. in ms. notes. *Donec* Junt. *Donicum* Lamb. 1001 *fligebant* Lach. for *lidebant. ledebant* A corr. Camb. Ver. Ven. *laedebant* vulg. 1002 *Hic* Lach. for *Nec. Sed* Lamb. The rest of this verse is quite causelessly altered by Junt. and Lamb. 1003 *ponebat* Ald. 1 Junt. for *potebas. poscebat* Flor. 31 Camb. 1006 rightly perhaps ejected by Lach. as spurious: the gen. *navigii* was unknown to Lucr.: yet sometimes I think Lucr. may have written *Improba naucleri ratio cum caeca iacebat:* the

ri of *naucleri* was absorbed in *ratio*; and then the corruption was easy. 1008 *dabat* Flor. 31 Camb. for *daeant* B, *deant* A. *dedant* Nic. Nicc. Ver. Ven. 1009 *Illi imprudentes* Ald. 1 Junt. for *Illi prudentes*. 1010 *nuptis nunc dant sollertiu' sponsi* Ed. in small edition for *nudant sollertius ipsi*, where a foot is wanting: any emendation must be quite uncertain here; but with *sollertiuspōsi* for *sollertius ipsi*, VI 749 *piso* AB for *ipso* might be compared, and perhaps III 198. *nunc se nudant sollertius ipsi* Lach.: this can hardly be right. *nunc dant aliis solertius ipsi* Junt. and vulg.: this I now retain, as more than one friend in whose judgment and knowledge I place much confidence, declare it to be right. '*ipsi* nocet sententiae' says Lach. and so I still think; but am now inclined to believe it may be an inaccuracy of the poet himself, not of his copyists. The use of *ipse* for or together with *sponte* and the like, to denote what one does of his own free choice, not forced by another, which Prof. Conington speaks of to Virg. ecl. IV 21 and Wagner quaest. Verg. XVIII m. illustrates, is familiar enough and is found in Lucretius, as II 1090 *natura videtur Libera continuo dominis privata superbis Ipsa sua per se sponte omnia dis agere expers*; 1157 *nitidas fruges vinetaque laeta Sponte sua primum mortalibus ipsa creavit, Ipsa dedit dulcis fetus et pabula laeta*; IV 131 *Sunt etiam quae sponte sua gignuntur et ipsa Constituuntur in hoc caelo*; but any sense the word could bear in our present passage appears to me essentially different: these sons of earth, though they took the poison *inprudentes*, unwittingly, took it just as much *sponte*, *liberi*, *non coacti*, as men now-a-days give it to others. Again the absence of any word in the second clause to answer to *Illi* in the first is very harsh, to say the least; and it is perhaps only because *aliis* has so long had a place in the common eds. that it seems more natural than another reading. But the poet may have *inprudens* confounded the notion of doing a thing without knowing the consequences with that of doing it because compelled by another to do it.

1011 *casas* Flor. 31 Camb. Brix. for *cassas*. *pellis* (*pelles*) Brix. Ver. Ven. for *pellus*. *pelvis* Flor. 31 Camb. 1013 *Conubium* Lach. for *Cognita sunt*. *Coniugium* Bern. Ald. 1 Junt. vulg. interpolate a verse *Castaque privatae Veneris connubia laeta Cognita sunt*; and in truth a verse may have been lost. 1016 *ferre* Flor. 31 Camb. for *ferri*. 1019 *amicitiem* A Nic. Nicc. Flor. 31 Camb. Gif. *amicitiam* B Avanc. at end of Catullus, Junt. Lamb. *aventes Finitimi inter se*. *habentes* A corr. Nic. Nicc. Flor. 31 Camb. etc. *Finitim* A Nic. Nicc. Ver. Ven.: hence though Junt. rightly reads *aventes*, yet Nauger. Lamb. Creech Wak. vulg. before Lach. keep the absurd *habentes*. *Finitima* Brix. Ald. 1 Nauger. Lamb. vulg. but *Finitimi* B Camb. rightly. *violari* Lach. most properly for *violare*. 1023 *omnis* (*omneis*) Junt. for *omni*: a certain correction, yet strange to say Nauger. Lamb. etc. have adopted the *omnium* of 1 Vat. and Ald. 1. 1025 *caste* Flor. 31 for *casti*. *servabant casti* Junt. Lamb. vulg. contrary to usage of Lucr.

1032 *monstrent* Junt. for *monstret*. Flor 30 has the mark of *n* over the *e*, but whether from the hand of Nic. Nicc. I could not tell. 1033 *vim* Brix. (?) Ver. Ven. Avanc. for *vis*. *vi . . sua* Flor. 31 Junt. *vis . . suas* Luc. Mueller de re metr. p. 382, perhaps rightly: comp. II 586 III 265. *quod*. *quam* Avanc. Lamb. in all 3 eds. Creech etc.: Lamb. says

in his notes that he had once thought of *quoad*, but much preferred *quam: quod* = *quoad*. 1035 *infestus* Flor. 31 Junt. Nauger. Wak. Lach. for *infessus*. *infensus* Avanc. Lamb.: but *infestus* is a Lucretian word; *infensus* not. 1038 *Vix etiam cum* Junt. for *Vix tiam cum* B, *Vix iam cum* A Nic. Nicc. etc. *Vix quoque iam cum* Flor. 31. *Vix iam etiam cum* Avanc. *Vix iam cum ipsis* Nauger. Lamb. ed. 1 and 2. *Vix dum etiam cum* ed. 3. 1039 *porro* Ald. 1 Junt. for *proporro*. 1040 *pinnis* B. *pennis* A Nonius Nic. Nicc. (VI 834 *pinnarum* A, *pennarum* B). 1048 *Utilitatis et* Avanc. Junt. for *Utilitas et*. Ald. 1 has the misprint *Utilitatis etiam*, but Avanc. corrects it at end of his Catullus. Lach. takes no notice of this and similar corrections, though his own Catullus shews that he knew the edition of Avanc. 1049 *Quid vellet facere ut sciret animoque videret*. Avanc. followed by Lamb. Lach. etc. but not by Junt. or Nauger. has corrupted the sense by reading *Quid vellet, facere ut scirent animoque viderent*: on comparing what precedes and follows, it is manifest that the construction must be the same as 183 *Quid vellent facere ut scirent*: *first* he, like the gods there, had to know what he wanted himself; then *item* 1050 to make others to know. *scirēt* is like *fulgēt* in II 27. 1053 *Quid sit opus facto, facilest* Lach. for *facile si*. *faciles neque enim* Flor. 31 Camb. Ald. 1 Junt. Lamb. ed. 1 and 2; but ed. 3 *Quid facto esset opus; neque enim faciles*: a violent change; but his knowledge of Latin taught him that in the old reading *sit* and the position of *neque enim* were quite indefensible. 1058 *varia res* Bentl. for *varias res*: the attraction of *res* has caused the error: 1090 *alia re* mss. for *alia res*. 1062 *licet id rebus* Lach. after Gif. in note for *licet in rebus*. *id licet e rebus* Lamb. 1063 *magna*. *inmane* Lach. without cause. 1064 *fremunt* Ald. 1 Junt. for *premunt*. *tremunt* Nonius. 1065 *alio* Flor. 31 Camb. etc. for *alia*. *rabie restricta* Lach. for *rabie stricta*. *rabies districta* Flor. 31 Camb. 2 Vat. *rabie districta* Lamb. *rabie distracta* 2 Vat. Nauger. *minantur* Nauger. first for *minatur*. 1067 *Et* Lach. for *At* which even Lamb. retains. 1068 *iactant* Nauger. for *lactant*. *petentes* Flor. 31 Ver. Ven. etc. for *potentes*. *patente* Is. Voss. in ms. notes. 1069 *teneros imitantur*. *veros imitantur* Faber in notes. *teneros minitantur* Lach.: but they refine too much I think, nor do I see any real difference in sense between *imitantur* and *minitantur*. 1071 *deserti baubantur* Nonius Nic. Nicc. for *desertibus aubantur*, i. e. deserti b. aubantur, AB: so VI 1241 *Poenibus at* B, *Poenibus et* A Nic. Nicc. etc. for *Poenibat*. 1076 *patulis ubi naribus* Lach. for *patulis sub naribus*: this slight change I adopt, but with hesitation for other reasons and also on account of the apparent imitation of Virgil georg. III 85 *Collectumque fremens volvit sub naribus ignem*: 'turpe et obscenum loquendi genus' really comes to nothing: Aen. XI 736 *At non in Venerem segnes nocturnaque bella*; geor. III 98 *siquando ad proelia ventum est*, and the like are quite as coarse. 1080 *salso*. *salsis* Lamb. tacitly. 1082 *praedaeque* Avanc. rightly for *praedataque*. *praedaque* A corr. Nic. Nicc. vulg. 1084 *ut* Nauger. for *et*. Ald. 1 Junt. omit the word. 1088 *Muta* Flor. 31 Ald. 1 Junt. for *Multa*. 1090 *res* Nic. Nicc. for *re*: comp. n. to 1058.

1094 *inlita* Lach. for *insita*. *incita* Junt. vulg. 1095 *vapore* Lach. for *vaporis*. *vapores* vulg. *vare* Nonius. 1096 *Et* Junt. for *Ut*.

1099 *Et micat* Ald. 1 Junt. for *Emicat* which Lamb. in errata to ed. 3 wrongly restores. 1102 *coquere. quoq; uere* A, *coq. uere* B, *quoquere* Nic. Nicc. and so Lach. 1105 *hi victum* Nauger. for *invictum. et victum* Ald. 1 Junt. 1106 *rebu' benigni* Lach. for *rebus et igni.* 1110 *Et pecus atque agros* Lach. for *Et pecudes atque agros:* comp. 1291 where for *pecus* B has *pecudes. Et pecudes et agros* Flor. 31 Camb. vulg. *divisere atque dedere* Ald. 1 Junt. for *diviseratque debere. divisim ut quisquis haberet* Camb. 1112 *viresque vigentes* Faber in notes for *viresque vigebant. viresque vigorque* Lach.: *vigebant* he says has come from 1107: clearly *vires vigebant* could only mean 'their strength was then in its vigour': a meaning here quite out of place. 1116 *creti* Flor. 31 Camb. Brix. Ver. Ven. for *certi.* 1120 is much corrupted by Lamb. 1124 *Certantes iter* Ald. 1 Junt. for *Certantesque inter: iter* Flor. 31 Brix. before them. 1127 1128 (1131 1132) I have brought to this place: Lach. puts them after 1135. 1128 (1132) *aliis* Lamb. most rightly for *altis.* 1131 (1129) *sine* Flor. 31 Camb. 3 Vat. for *side.*

1141 *redibat* Flor. 31 Ald. 1 Junt. for *recidat.* 1145 *vi colere* Flor. 31 Camb. for *vicere* A, *vigere* B, *vincere* Nic. Nicc.: comp. 1150. 1151 *Inde. Unde* Junt. Lamb. etc. without cause. Gif. attributes *inde* to Marullus. 1152 *vis* Camb. Brix. for *ius.* 1160 *mala* added by Lach. *diu* Ald. 1 Junt. vulg.

1177 *Et tamen omnino. Et manet omnino* Lamb. most perversely. 1178 *ulla vi* Brix. Ald. 1 Junt. for *illa vi. illa* (*ulla*) Ver. Ven. 1189 *nox. lux* Lach.: but the repetition nowise offends me. *sol* Lamb. 1190 *severa. serena* Lach. which Lamb. also prefers: the change of course is very slight; but I confess *severa* is to my taste the more poetical. 1192 *sol. ros* Lamb. 1198 *ullast velatum. ulla velatumst* all mss. and eds. before Ald. 1. 1203 *pacata* Junt. for *placata*: a quite necessary correction which Nauger rejects, but Lamb. ed. 2 and 3 properly adopts. 1207 *in pectora. in pectore* Ald. 1 Junt. followed by Nauger. Lamb. Creech etc. most absurdly. 1214 *Solliciti* Bentl. for *Et taciti:* he refers to I 343 and VI 1038. *Et tanti* 1 Vat. Ald. 1 Lamb. 1220 *Fulminis* Ald. 1 Junt. first for *Fulmini. Fulmine* Nic. Nicc. *Fulmine terribili* Flor. 31. 1224 *Nequid* Lach. for *Nequod:* a necessary change, if it is joined with *admissum.* 1225 *adultum* Lach. for *adauctum. adactum* Ald. 1 Junt. Lamb. etc. 1226 *Summa* Flor. 31 Ald. 1 Junt. for *Summe.* 1229 *adit ac prece* Flor. 31 Camb. etc. for *adita prece.* 1230 enclosed by Lach. in [ ]. 1237 *dubiaeque. dubiaeve* Bentl. without cause: see notes 2.

1241 *superest aes atque aurum* Ald. 1 Junt. for *superest aeque aurum.* 1244 *caeli fulmine misso* B A corr. Nic. Nicc. all later mss. and eds. *caelo* A p. m. alone: *caeli* is quite right: see I 489. *caelo* Lach. who says 'neque dixit alibi Lucretius *fulmen caeli,* sed *plagam caeli* supra 1095': but why his once using *plaga caeli,* should prevent him from twice using *fulmen caeli,* my mind cannot comprehend. 1252 *Quidquid. Quicquid* AB; and so the lex Rubria 26: Lucr. may therefore have written *quicquid* here, though elsewhere his mss. have *quidquid* for the relative; *quicquid* in the sense of *quicque,* rightly according to the rule explained in notes 1 to I 23 *quicquam.* 1253 *altis* A Nic. Nicc. Flor. 31 Camb. Brix. Ver. Ven. Junt. *altas* B A corr. Avanc. Lamb. 1254

Ab Junt. first for *A*, rightly. 1258 *in terra splendere* Lach. first for *in terras*. *in terris* Lamb. 1259 *capti* Flor. 31 Ver. Ven. for *capiti*. 1266 *darent silvasque ut caedere possent* Lach. for *parent silvasque et cedere possint*. 1267 *dolare et levia radere* Junt. (Ald. 1 has *ac* for *et*) for *dolaret levare ac radere:* which seems the simplest change. *domo, levare ac radere* Lach. *laevare dolare et radere* Lamb. Lach. also suggests *dolare secare ac* or *dolare aequare ac*. 1272 *poterat* Lamb. and Lach. for *poterant:* this I have received with some hesitation. 1273 *Tum* Lach. for *Nam*. *aes* added by Flor. 31 Camb. etc. 1278 *e* added by Brix.

1285 *flamma atque* B corr. Flor. 31 Camb. 4 Vat. for *flammatque ignes*. *flammae atque* Nauger. Lamb. etc. 1294 *obprobrium*. *obscenum* all the mss. of Macrob. sat. VI 1 63, collated by Ianus: a curious variation. Lach. who depended on an old edition of Macrobius, is mistaken in supposing that *obscenum* is not the ms. reading. 1297 *armatum*. *reppertum* Lamb. etc. and 1301 *inventum* Junt. Lamb. etc. for *armatum:* both most needless changes. 1300 *biiugos* Faber for *biiugo: biiugo* makes the construction extremely harsh, and, as Faber says, has come from 1299. 1302 *taetras* (*tetras*) Lach. for *tetros:* rightly, see 1339.

1310 *partim*. *Parthi* Camb. 2 Vat.: a reading adopted by Lamb. Creech Wak. vulg. before Lach. 1311 *doctoribus*. *ductoribus* Ver. Ven. Ald. 1 Junt. Nauger. Lamb. etc. 1315 = II 632, except *undique* for *numine*, seems clearly spurious and unmeaning. 1319 *petebant* Vat. 640 Urbin. Junt. for *patebant*. 1320 *deripiebant* A Lach. *diripiebant* B Nic. Nicc. Flor. 31 Camb. all before Lach. 1323 *suos*. *sues* Ver. Ven. Avanc. Lamb. etc. 1325 *fronte* Lach. for *mente* which has no meaning. *ad terramque minanti mente* Lamb. tacitly, Gif. Creech etc. and this Marullus or Candidus doubtless meant to read. 1327 1328: Junt. Lach. and Ed. in small ed. omit the second; Lamb. ed. 1 obelises the first, ed. 2 and 3 both: but see notes 2. 1330 *dentis adactus* Junt. for *dentis adauctus* B, *dentibus adauctus* A Nic. Nicc. Camb. *dentibus ictus* Politian in marg. Flor. 29. 1340 *fata* B corr. Lach. for *facta* most rightly. 1341—1346 Lach. justly ejects the last three of these verses as the work of an interpolator; but it is no less certain that the first three are likewise spurious; *Si fuit ut facerent* is obviously a comment on *Sed facere id non tam* cet. Lach. to make sense and grammar is compelled to read *Sic fuit* with Ald. 1 Junt. Lamb. for *Si fuit*, and to transpose 1342 and 1343: see Camb. Journ. of phil. IV p. 288: 1345 = 528.

1351 *tela paratur*. *tela parantur* Lamb. perversely. 1368 *terram* Lach. for *terra*. 1388 1389 = 1454 1455, and are here quite out of place. 1391 *tum haec sunt omnia* 'ut quidam legunt' says Lamb. for *tum sunt omnia:* comp. 1404. *tum sunt carmina* Lach. *otia* Faber. 1397 *ioca* Flor. 31 Ald. 1 Junt. for *loca*. 1400 *monebat* Flor. 31 Junt. for *movebat*. 1405 *solacia somni* Lamb. Lach. for *solacia somno:* the change seems necessary. 'secutus sum codicem Vaticanum' says Lamb. All the mss. at present in the Vatican have, I believe, *somno*: but again and again Lamb. speaks in the same vague way of Vatican and other mss. 1409 *servare recens* Ed. for *servare genus: servare* first absorbed the *re;* then *cens* became *genus*. *sonis* Lach. Certainly *genus* is quite unmeaning. *numeris* Nic. Nicc. as well as Flor. 31. Ver. Ven. Avanc.

in Ald. 1; but at end of his Catullus he bids us read *numerum.* 1410 *Maiorem* Flor. 31 Camb. for *Maiore. dulcedini'* Lamb. rightly for *dulcedine.* 1418 *ferinae* Junt. for *ferina. vestis contemta ferinast* Lamb. ed. 2 and 3. 1419 *tunc* Brix. Ald. 1 Junt. for *nunc.* 1431 *in* added by Flor. 31 Camb. Ald. 1 Junt.

1436 *magnum versatile. magnum ac versatile* Ed. in small ed.; and *ac* may have fallen out after *m: et* is added by Ald. 1 Junt. Lamb. vulg. *versatili'* Lach. 1442 *Iam* Lach. for *Tum. propter odores* all mss. which Wak. absurdly defends. *puppibus* (*puppib.*) *et res* Lach. *puppibus* is unquestionably right; but *res* appears strange without any epithet; I have written therefore *puppibus; urbes. Tum mare velivolum florebat navibu' pandis* Junt. Lamb. etc. probably after Servius. 1451 *polire* Flor. 31 Vat. 640 Urbin. and 1954 Othob. Ald. 1 Junt. Lamb. Lach. for *polito.* 1455 *erigit. eruit* Junt. Lamb. etc. wrongly. 1456 *clarescere et ordine debet* Ed. for *clarescere corde videbant:* one *e* was absorbed by the other; then *tordine debet* passed into *corde videbant. clarescere conveniebat* Lach. who joins *Artibus* with *venere.*

BOOK VI

1 *frugiparos* AB. *frugiferos* A corr. Nic. Nicc. and later mss. and eds. before Wak. 4 *solacia* Nic. Nicc. for *solaci.* 7 *extincti* Ald. 1 Junt. for *extincta.* 10 *mortalibus* Nic. Nicc. for *acortalibus.* 11 *proquam posset* Lach. for *proquam possent:* a simple and certain correction of a much-vexed passage. *per quae possent* Avanc. Madvig, deceived by this, conjectured in Henrichsen de frag. Gott. *per quas possent vita c. tuta.* Lamb. and Creech obelise the verse. *per quae...consciscere* 1 Vat. Junt. 13 *excellere* Ald. 1 Junt. for *excolere* A Nic. Nicc. *excollere* B, *extollere* Flor. 31 Camb. 14 *corda* Ald. 1 Junt. for *cordi.* 15 *querellis* of mss. has of course come from 16 and has supplanted the words of Lucr. who wrote *sine ulla Pausa atque.* Lach. retains *querellis* here and in 16 reads *Passimque...periclis. cogei* Lach. *cogi* Lamb., rightly for *coget;* a common corruption in our mss. Both Avanc. and Junt. corrupt the passage greatly. Lamb. followed by Gif. Creech, etc. contracts the two verses into one, thus *Atque animum infestis cogi servire querelis: servire* also Ver. Ven. Ald. 1 Junt. *Causam quae* Avanc. Nauger. for *Pausa atque.* 17 *vas* Ald. 1 Junt. for *fas.* 27 *tramite parvo. tramite prono* Lamb. *limite prono* Junt. apparently after Lactantius inst. VII 27. Lach. rightly joins *tramite parvo* with what follows. 28 *recto* A corr. Nic. Nicc. Flor. 31 Camb. etc. Lactant. for *recta.* 30 *fieret* Jac. Susius in Tonson, Lach. for *fuerit. flueret* Ald. 1 Junt. vulg. *naturali. naturae vi* Lamb. *naturali viro atque* Ald. 1 Junt. 31 *casu. causa* Lach. 32 *Et quibus* Flor. 31 Camb. for *E quibus.* 34 *Volvere* Ver. Ven. for *Volnere.*

44 *et* added by Flor. 31 Camb. Brix. 46 *ressolui* Goebel obs. Lucr. p. 18 for *dissolui:* comp. V 773 *Qua fieri quicquid posset ratione resolvi:* a friend suggests that IV 500 *dissolvere causam* may support *dissolui*

here. *fiunt, fateare necessest Pleraque dissolui* Lach. most unsuitably, as if only *pleraque*, not *omnia*, were to be dissolved. *fiunt possuntque, n. P. dissolui* Bern. to which the same objection applies. Lamb. seeing this difficulty, in ed. 2 and 3 gives *fiunt fientque, necesse Esse ea dissolui.* 47—49 an exceedingly corrupt passage; yet I fancy that I have emended it without much violence: in 47 I have changed nothing; after it there is manifestly a hiatus of several verses, the general sense of which I have attempted to give in my translation. The ms. reading of 48 and 49 is as follows, *Ventorum exirtant placentur omnia rursum Que fuerint sint placato conversa favore:* with *exirtant* for *ex ira ut*, comp. IV 820 *virtuti* for *vir uti*. *omnia* for *omina* is an almost unfailing blunder of mss. *furore* is from Lamb. ed. 2 and 3, and Auratus for *favore*. The older emendations in Ald. 1 Junt. Lamb. etc. are so devoid of all probability that I will not cite them: Lamb. indeed believes the lines not to be Lucretius'; nor is Lachmann's text much happier: *instituí conscendere currum Ventosum et certant plangentia flamina rursum, Quae fuerint, sine, placato conversa furore:* then at 50 he begins a new paragraph, and 52 for *Et faciunt* gives *Haec faciunt*, though Lactantius twice over has the ms. reading. Bern. supposes a lacuna both before and after 48 which he thus leaves, *Ventorum existant, placentur omnia rursum:* 52 Junt. Lamb. etc. for *Et faciunt* have *Efficiunt*. 56 57=90 91= I 153 154: here in the 6th book Lach. rejects them in the first, retains them in the second place: to me it is manifest that in both places they come from the annotator who thought they were in point and consequently jotted them down in the margin in his usual fashion. 68 *longeque* Nic. Nicc. for *longique*. *remittis* Flor. 31 Camb. Brix. for *remitti*. 71 *oberunt* Wak. for *oderunt*. *aderunt* Ald. 1 Junt. Lamb. etc. 72 *ex ira* Ald. 1 Junt. first for *exire*. 73 *quietos* Junt. first for *quietus*. 74 *fluctus* Flor. 31 Ald. 1 Junt. for *fletus*. 76 *feruntur* Brix. Ald. 1 Junt. for *fuerunt*. *ferunt* Ver. Ven. 82 *sunt ornanda*. *sunt tornanda* Flor. 31 Politian in marg. Flor. 29. 83 *est ratio caeli* (*caelis* Brix.) *speciesque tenenda* Brix. Avanc. Lamb. ed. 1 and 2 for *est ratio caelisque tenenda:* the scribe omitted *specie* because of the following *squete*. *est ratio fulgendi visque tonandi* Lach. which seems to me most improbable. *est ratio superum caelique* Flor. 31 Camb. 2 Vat. Lamb. ed. 3. 85—89 Lach. encloses in [ ]. 90 91=56 57= I 153 154: see above. Lach. admits them here. 92 *ad candida calcis* Lamb. and Turnebus for *ac candida callis:* a certain emendation.

102 *nubes* Flor. 31 Ald. 1 Junt. for *nure*. *mire* Nic. Nicc. Brix. Ver. Ven. 103 *lapides* Flor. 31 Ver. Ven. for *pepides*. *tigna* Flor. 31 Camb. Junt. for *iigna*. *ugna* Nic. Nicc. *ligna* Ver. Ven. Avanc. 105 *Nam cadere aut bruto* Flor. 31 Camb. all Vat. Brix. Ver. Ven. Junt. for *Nam cadere avi* B, *Nam candere aut* A corr. (says Lach. but ? p. m. also) Nic. Nicc. *aut* is unquestionably right: comp. 1198 *avi* mss. for *aut*. Lach. wishes to confine Lucr. in too strait a waistcoat. *Nam cadere abrupto* Avanc. *Nam aut cadere abrupto* Lamb. *ab bruto* Lach. 110 *malos* Flor. 31 Junt. for *matos*. *muros* Brix. Avanc. *matos* (*muros*) Ver. Ven. 112 *sonitus* added by Flor. 31 Camb. etc. 114 *ve* Junt. for *que*. 115 *planguntque* Junt. first for *planguentque*. 116 *ut* added by Flor. 31 Vat. 640 Urbin. and 1136 Othob. Pius. 118 *corpora tractim* I. F. Gronov.

Faber for *corpore tractim*. '*f. corpora tactu*' Heins. in ms. notes. *corpore tractum* Nic. Nicc. Flor. 31 Camb. all Vat. etc. *corpori' tractum* Junt. 120 *exierunt* Vat. 1706 Reg. for *exierum:* also Heins. in ms. notes has '*exierunt* s' i. e. the ms. of Modius who must therefore have read in it *exierunt*, as the ed. Paris. 1565 has *exierit*, as well as Lamb. ed. 1 and 3. Is. Voss. too and Creech prefer *exierunt*. *exierit* Flor. 31 Camb. 3 Vat. Ald. 1 Junt. Lamb. *exierint* Brix. Ver. Ven.

124 *concollecta* AB. *conlecta* Nic. Nicc. Brix. *collecta* A corr. Camb. 128 *comminuit*. *commovit* Flor. 31 Camb. Brix. Ver. Ven. vulg. before Lach. 129 *scissa* Bern. for *missa*. *fissa* Lach.: it is clearly the *nubes*, not the *procella*, which is here spoken of; though all editors before Lach. retain *missa*, which Isidore too orig. XIII 8 must have read: the corruption therefore must be old. 130 *parva Saepe ita dat magnum sonitum* Is. Voss. in ms. notes Wak. for *parva Saepe ita dat parvum sonitum:* Wak. appositely quotes from Isidore *cum vesicula quamvis parva magnum tamen sonitum displosa emittat:* this seems to me the simplest correction; as *parvum* could easily come from the preceding *parva*. It is certain too that Lucr. can use the indicative after *cum*, when it signifies as here 'when at the same time:' comp. Virg. ecl. III 16 *Quid domini faciant, audent cum talia fures;* and see notes 2 to I 566. *pariter* Junt. Lamb. etc. for *parvum*. *Saepe det haut parvum* Lach. *Noenu ita det p.* Bern.

132 and 136 *perflant* A corr. Nic. Nicc. for *perfiant* of AB. 133 *Ut. Cur* Lamb. wrongly. 138 *Arbusta evolvens* A corr. Flor. 31 for *Arbusta volvens*. *Arbuste volvens* Nic. Nicc. Camb. 144 *aestus* Flor. 31 Camb. etc. for *aest*. *aestu* A corr. Nic. Nicc. Ver. Ven. vulg. 147 *ut* added by Lamb. *trucidet* Junt. for *trucidat*. Lach. on the contrary in 145 for *Fit* reads *Id*. 149 *propere* Ald. 1 Junt. for *propter*. 151 *repente* Flor. 31 Brix. for *recente*. 154 *res ulla* Macrob. sat. VI 4 5 for *res uita*. *res ulla uita* Ver. Ven. *resina* Flor. 31 Camb. 158 *in artum*. *in arto* Lach.: but somewhat involved constructions are by no means avoided by Lucr. comp. 176 and III 843.

165 *Fulgere* B corr. Nic. Nicc. for *Fugere*. 168 *Ancipiti* Flor. 31 Brix. for *Ungipiti*. *videas* Junt. for *videat*. 172 *E simili* A Nic. Nicc. Flor. 31 (Lach. wrongly assigns to it *Et*) 2 Vat. Brix. Junt. Lamb. *Et simili* B Camb. 3 Vat. Ver. Ven. Avanc. 179 *liquescit* Ald. 1 Junt. for *quiescit:* a certain correction. *calescit* Lach. utterly destroying the force of the passage. 180 *perscidit* Flor. 31 Camb. Brix. for *perscindit*. 183 *adficit* Bentl. for *adlicit*. *adtigit* Lamb. conj. *adcidit* Heins. in ms. notes. 184 *lumina* B. *limina* A Nic. Nicc. Flor. 31 3 Vat. 185 *alte* Ald. 1 Junt. for *alti*. 187 188 wrongly placed by Lach. after 193 on account of the neuters; but see 759 I 352 IV 934. 187 *Ne. Nec* Lach. 188 *sint* Junt. first for *sit*. *extructa* Ald. 1 Junt. for *extricta*. 191 *cumulata* B corr. Brix. Ver. Ven. for *culata*. *procul alta* Flor. 31 Camb. 192 *urguere* A Nic. Nicc. *urgere* B. *superne* Bentl. for *superna*. 201 *e* added by Nic. Nicc. but he has *convolvuntur* with Flor. 31 Camb. Ver. Ven. 205 *color* Serv. ad ecl. VI 33, Avanc. Nauger. *calor* AB Nic. Nicc. Flor. 31 Camb. etc. mss. of Macrob. sat. VI 5 4: yet *color* must be right. The mss. of Macrobius sometimes agree strangely with those of Lucr. in corruptions. 208 *Flammeus est*

Flor. 31 Camb. for *Flammeusq. splendidus ollis* Flor. 31 Camb. corr. but p. m. for *splendidusolis*. 209 *Quin etiam* Lach. for *Quippe enim*. *Quippe etenim* vulg. 210 *rubeant* Flor. 31 Camb. Brix. for *iubeant*. 213 *fulgere. fulgore* Avanc. Lach. in defiance of Epicurus and Lucretius assigning colour to atoms. 216 *ingratis* Pius in notes for *ingratius*. 218 *sonitu* Vat. 1954 Othob. Ald. 1 Junt. for *sonis*. *sonitis* Flor. 31 Camb. 1 Vat.

219 *quali* added by Lamb. *quod sic* Flor. 31 Camb. etc. 220 *ictus et* Flor. 31 Ald. 1 Junt. vulg. for *ictu et*. *ictu loca* Lach. as if *ictus* could not mean the effect of the stroke. 221 *auras* Junt. for *auris*. 223 *saepe* Is. Voss. in ms. notes for *se*. *per se* Flor. 31 vulg. without sense. 226 *mobilibusque* Ald. 1 Junt. for *montibusque*. 228 229 Lach. wishing to support his unjustifiable alteration of I 489, a precisely parallel passage, without any just reason makes one verse out of these two by omitting *per s. d. C. ut ac v.* 231 *Curat item*. *Curat utei* Lach. *Curat item ut* Lamb.: but surely there is sufficient authority for omitting *ut* after *curat*. 234 *et insinuatus* Lach. for *ut insinuatus*. *ut insinuatur* Nic. Nicc. Flor. 31 Camb. vulg.: but *ut* for *ubi* is not Lucretian. 237 *pellens* Ed. for *tellens*. *tollens* A corr. Nic. Nicc. etc. *pollens* Lamb. vulg. Lach. *cellens* Wak. 241 *tigna* Lamb. first (not Flor. 31) for *igna*. *ligna* Nic. Nicc. later mss. and eds. before Lamb. 242 *demoliri* Ald. 1 Junt. for *commoliri*: prepositions seem often to be confounded in our mss. *cremare* Ed. for *ciere* which has no meaning: the last letters, which were on the outside margin of this the 259th page of the archetype, were lost. *lamenta* Lach. for *monimenta*: a violent change which destroys the whole force of the passage. 245 *te* added by Flor. 31 Camb.

246 *gignier* Ald. 1 Junt. for *gigni*. *nunc gigni* Flor. 31 Camb. *crassis* Nic. Nicc. for *classis*. 250 *tum* Lach. for *tunc*. 257 *demissum flumen* Junt. for *dimissum fulmen*. *demissum fulmen* Avanc. which is repeated as a correction at the end of his Catullus and must be a misprint for *flumen*. 258 *effertus* Lach. for *et fertus*. *et fertur* vulg. 269 *plena* Flor. 31 Camb. etc. for *plana*. 272 *habere* Ald. 1 Junt. for *haecdere*. *hac de re* Nic. Nicc. etc. 277 *arto* Lach. for *alto*. 281 *venti vis et gravis ignis* Bentl. for *gravis venti vis igni*. *gravida, aut vis ignis et acer* Lach. *vis venti vel gravis ignis* Junt. Lamb. etc. 286 *videatur* Ed. for *videantur*: the scribe has adapted the verb to *templa*: see I 1108. Lach. reads *Exprimere* for *Opprimere*, Bern. *Occidere*. 290 *concussu* B corr. Ald. 1 Junt. for *concussus*. 291 *uti* Ald. 1 Junt. for *ut*. *ita ut* Flor. 31 Camb. 292 *revocari* Lach. for *revocare*. 296 *calidam* Bern. rightly for *valida*. *gravidam* Bentl. Lach. *fulmine* Ald. 1 Junt. for *culmine*. 298 *patrio* Flor. 31 Camb. 3 Vat. etc. for *spatio*. *quam spatio* (*quem patrio*) Ver. Ven. *Latio* B corr. perhaps rightly. *quem*. *quod* Camb. 2 Vat. Junt. Lamb. 302 *Dum venit, amittens*. 'Immo *Cum venit amittens*: alioquin oratio non constat' Lach. 308 *concepit* Flor. 31 Camb. Ver. Ven. etc. for *concipit*. 309 *ipsius* Ald. 1 Junt. for *ipsis*. 315 *illi* Lach. for *ille*. *illa* Flor. 31 vulg. 320 *ea quae* Lach. first for *ex quae*. *ex quo* vulg. without sense. *tanta vi missa* Flor. 31 Camb. 2 Vat. for *tantaumissa*. *tanta immissa* Nic. Nicc. Ver. *tanta vi immissa* Ald. 1 Junt. etc.

324 *Et* Nauger. first for *At*. *Ac* Junt. Wak. *percurrunt* Lach. for

percunt. *pergunt* A corr. Nic. Nicc. *iam pergunt* Flor. 31 Camb. 2 Vat. *pergunt sic* Junt. Lamb. 335 *Deinde, quod.* *Adde quod* Lach. which seems to me much weaker than the ms. reading. 336 *plagast* Lach. for *plaga si.* *plaga sit* Flor. 31 Camb. all before Lach. 347 *incendunt* B rightly. *incedunt* A Nic. Nicc. *intendunt* Ald. 1 Junt. Lamb. etc. 349 *transvolat* Nauger. vulg. for *transviat.* *trameat* Gif. 350 *perfringit* Ald. 1 Junt. vulg. for *perfrigit* B, *perfigit* A, *perfregit* A corr. all later mss. Ver. Ven.: comp. 138 *perfringens* A corr. vulg. *perfingens* A, *perfrigens* B. Lach. keeps *perfigit,* which can hardly be right. 357 *apta* Turnebus Bentl. Wak. Lach. for *alta.* 359 *se veris* Flor. 31 Camb. etc. for *seris.* *seris* (*veris*) Ver. Ven. 360 *calore* Ald. 1 Junt. for *calores.* 362 *Interutraque* Lach. for *Inter utrasque.* 364 *et* added first by Junt. *frigidus aestum* Nic. Nicc. to Avanc. *ad aestum* Nonius. 365 *nubi* Lach. for *nobis* which has no sense. 366 *sit* added by Ald. 1 Junt. *sic* Flor. 31 Camb. 368 *et, rigoris* Junt. vulg. for *est, ligoris.* Lach. keeps *est,* and for *id* reads *ut.* 370 *res inter se* Flor. 31 Camb. 3 Vat. for *inter se.* *inter se res* Ver. Ven. vulg. Lach. wrongly, as *inter se* is metrically one word. 374 *freta* added by Lach. most acutely, Flor. 31 Camb. vulg. add *bella* after *haec.* 375 *eo si* B corr. Lamb. for *eos.* *si in eo sic* Camb. *si in eo tum* Avanc. *si in eo iam* Junt.

382 *mentis* Flor. 31 Camb. 2 Vat. for *menti.* 384 *hinc* Lach. for *hic,* as in 88. 389 *quo quoiquest.* *quo cuique est* Flor. 31 Camb. etc. for *quo inquest.* 389 *voluptas* Junt. first (not Flor. 31) for *voluntas.* 401 *Iuppiter in terras* Nic. Nicc. B corr. for *Iuppiterras:* but both B and Nic. Nicc. spell *Iupiter.* 402 *ipse in eas tum* Lamb. first for *ipse in aestum.* *ipsus in aestum* Flor. 31 Camb. 3 Vat. etc. Wak. 406 *si vult* Avanc. Candidus at end of Junt. Nauger. for *si vivit* B, *si iuvit* A, *senuit* Nic. Nicc. *sevi ut* Flor. 31 Camb. *saevi ut* Junt. *Praeterea.* *Propterea* A Nic. Nicc. etc. 421 *loca* B corr. Flor. 31 Camb. Ver. Ven. for *ioca.* *que eius* Lach. for *que plus.* *que huius* Lamb.

424 *Grai* Flor. 31 Camb. Brix. for *Grali.* *Graii* B corr. *Graiei* Lach.: Lucretius wrote either *Graiei* or *Grai,* not *Graii.* 426 *tamquam* Flor. 31 Camb. Ver. Ven. for *tam cum.* 428 *incita* Flor. 31 Camb. etc. for *lacita.* 430 *veniant* Lach. for *veniunt:* Flor. 31 Junt. Lamb. vulg. keep *veniunt,* and 429 read *sunt.* 440 *detrusit* Lamb. first for *detruit.* *detrudit* A corr. Nic. Nicc. vulg. before Lamb. 447 *procellae* Flor. 31 Vat. 640 Urbin. Vat. 1136 Othob. for *procellat* which Wak. absurdly retains. 449 *Officere* Flor. 31 Camb. for *Officeret.*

452 *supero* Lach. for *super.* *supera* Lamb. conj. *coiere* Flor. 31 Camb. Brix. for *coire.* 453 *moris* Lach. for *modis:* a certain correction. 454 *comprensa* Lamb. for *compressa.* 456 *haec* Lach. for *ea:* *ea* might possibly be defended by 188, and 215 *eas:* see notes 2 there: but the harshness here would be very great. 460 *quoque.* *quaeque* Camb. 2 Vat. Ald. 1 Junt. Lamb. etc. wrongly. 461 *furvae* Bentl. Lach. for *fulvae.* *nubis* Ald. 1 Junt. for *nubes.* 465 *turba maiore* Ald. 1 Junt. for *turbammor.* *turba minore* Flor. 31 Camb. 466 *Et condensa queant apparere* Lach. most acutely for *Et condensatque arta parere.* *Et condensa atque arta* Flor. 31, 3 Vat. Avanc. at end of Catullus. 467 *videantur* Flor. 31 Camb. Vat. 640 Urbin. 1136 Othob. Lamb. for *videatur.* 468 *loca* Flor. 31 Camb. Junt. for *lo.* *so* Nic. Nicc. *se* Brix. Ver.

Ven. Ald. 1. 469 *et sensus* Avanc. for *et sensum:* Junt. and Nauger. have both *ad sensum.* 473 *Quo magis* Ald. 1 Junt. for *Quod magis.* 474 *consurgere momine* Flor. 31 Camb. Vat. 1136 and 1954 Othob. for *consurgerem homine.* 475 *consanguineast* Is. Voss. in ms. notes for *consanguinea se.* *cum sanguine ob eumoribus* Nic. Nicc. *cum sanguine abest* Flor. 31 Camb. 4 Vat. Lamb. *ollis* Lach. for *omnis.* Avanc. at end of Catullus says 'non percipio illum mancum versum *Nam ratio cum sanguine ab humoribus omnis:*' which he found in Ven. 483 *huc* Vat. 3276 Avanc. for *hunc.* *hinc* Flor. 31 Camb. 2 Vat. *hunc coetum* Junt. Lamb. vulg. *illa* Flor. 31 Camb. Vat. 640 Urbin. for *illi* A, *ille* B. 488 *per* added by Junt. 490 *Tam magnis nimbis* Lach. for *Tam magnis montis.* *Tam magnae molis* Bern. which may be right. *Tam magnos monteis* Ald. 1 Junt. vulg. 491 *Coperiunt* Lach. rightly for *Coperiant.* 492 *caulas* Ald. 1 Junt. first for *cavias.*

496 *demissus* Flor. 31 Lamb. for *dimissus.* 498 *vincam* Flor. 31 Camb. Ver. Ven. for *vineam.* 503 *Concipiunt* Brix. for *Concidiunt.* 509 *umorem* Ed. for *vi venti* which as Creech has seen comes from the *vis venti* of 510: he proposes *imbres tum:* what Lucr. wrote must be quite uncertain. *umentia* Lach. after a conj. of Wak. 511 *turba maiore* Ald. 1 Junt. first for *turbam more:* the same error as in 465. *minore* Flor. 31 Camb. 3 Vat. 512 *Urget de supero* Lach. for *Urgete supero.* *Urget et e supero* A corr. Nic. Nicc. vulg. 515 *stillantque* B corr. Lamb. for *stillante.* 516 *Cera* Flor. 31 Ald. 1 Junt. for *Tela.* *Teda* B corr. 518 *vi.* *aquis* Lach. thereby ruining the sense. 519 *Atque tenere* Lach. for *At retineret.* *At remanere* Bern. 520 *cientur* Lach. from a conj. of Wak. for *fientur.* *fluenter* Flor. 31 Camb. Wak. *fuerunt* Ald. 1 Junt. 523 *redhalat* Is. Voss. in ms. notes for *redralat:* he also proposes *relatrat* 'i.e. reposcit.' *rehalat* A corr. vulg. 524 *inter* Nic. Nicc. for *inte* B, *ime* A.

527 *sorsum...sorsumque* Koch in Rhein. mus. n. f. VIII p. 640 most truly for *sursum...sursumque.* *cursu...cursuque* Lach. 531 *euntis* B corr. Avanc. for *avintis.* *aventis* A corr. *aquantis* Flor. 31 Junt. 533 *fiant* Ald. 1 Junt. first for *fluant.* 536 *terram* Flor. 31 Camb. etc. for *terras.* 537 *supera* Avanc. for *super.* *supera'st* Lamb. etc. *ventosis* Wak. for *ventis,* 'egregie' says Lach. justly. 541 *summersaque saxa* Flor. 31 Camb. 3 Vat. vulg. for *summersosca.* '*summerso capte* i. e. capite. sic. Enn. *capitibus nutantes pinus*' Is. Voss. in ms. notes. 542 *similem* Junt. first for *simile.* *esse sui* Ald. 1 Junt. for *esse vi.* 548 *plaustri* Lach. for *plaustris.* 550 *exultant, scrupus quicumque viai* Ed. for *exultantes dupuis cumque vim.* Lach. rightly saw that *vim* meant *viai:* so 465 and 511 the mss. have *mmore* for *maiore;* but the rest of his reading *et ubi lapi' cumque* seems to me to pervert the meaning, as Lucr. is giving two distinct instances of great results from small causes; and it would be a really monstrous exaggeration to say that houses shake in the way a carriage does, when the wheels are struck up by a stone on the road. The reading of course must be uncertain: I thought of *cum cumque,* but though Lucr. II 114 has *cum solis lumina cumque,* I never met with the two words in juxta-position; and *qui* might easily be absorbed in *quomque.* *ubi currus cumque equum vi* Flor. 31 Camb. and 3 Vat.: but Camb. in text and Vat. 1136 Othob. in marg. have also the

ms. reading. *ubi currus cunque equitum vi* Junt. Lamb. ed. 1 *ubi currus fortis equum vis* ed. 2 and 3, the *fortis equum vis* being from Avanc. *aedes, ubi cumque equitum vis* Wak. *sola Pisaeumque flumen* Is. Voss. in ms. notes: he adds *cum* after *Ferratos*. 552 *in magnas aqüae. magnas in aquae* Lamb. vulg. before Lach. 554 *vacillans* B corr. Avanc. for *vacillas*. 555 *inter dum* Lach. for *inter*. *in terra* Ald. 1 Junt. vulg. perhaps rightly.

563 *Inclinata tument* Ed. with Vat. 3276 for *Inclinata minent:* the *tu* was absorbed by the preceding *ta*, and then *ment* passed into *minent:* comp. 1195 *tenta mebat* of mss. for *tenta tumebat*, and v 1409 *servare genus* for *servare recens*. *Inclinata meant* Lach. *abeunt* Bern. *minant* Flor. 31 Camb. Ald. 1 Junt.: see Prisc. inst. VIII 29. I wrongly read *minantur* in small ed. *micant* Pius in text. Lamb. retains *minent*. At the end of this verse A and Nic. Nicc. have a. a. q. q. B has *aqueq.* which Bern. praef. p. III thinks a mere repetition of the end of 562; A introducing a further corruption: but Nic. Nicc. proves that the archetype agreed with A, not B. 568 *venti, vis nulla* Wak. first for *ventis nulla*. 574 *in pondere* A Nic. Nicc. vulg. rightly. *in pondera* B Turneb. Lach. The passages I quote in notes 2 from Petronius and Manilius will prove that Turneb. and Lach. are quite mistaken in supposing that the sing. cannot be used in the same sense as the plur. 582 *que* added by Flor. 31 Camb. etc. 585 *Syria*. *Tyria* Lamb. etc. without cause. 586 *quas* Avanc. for *qua*. 588 *ceciderunt* Ver. Ven. for *cecideret*. *cecidere et* Flor. 31 Camb. 589 *pessum* Nic. Nicc. B corr. for *possum*. 600 *Adque* Lach. for *Idque*. *Imque* Lamb. in the additions to ed. 3. 604 *Subdit et hunc* A Flor. 31 Camb. etc. *Subdita et hunc* B A corr. Nic. Nicc. *Subdit athuc* Lach. *Subditat hunc* Junt. Lamb. etc. 605 *subtracta* Nic. Nicc. for *substructa*.

608—638 are proved by Lach. to be quite unconnected with what precedes or follows. Junt. and vulg. prefix this verse *Nunc ratio reddenda augmen cur nesciat aequor*. 609 *Naturam* Ald. 1 Junt. first for *Natura*. 614 *adaugmen*. *ad augmen* Nic. Nicc. followed by all mss. and eds. before Lach. 616 *magnam sol* Junt. first for *sol magnam*. 624 *aequora, ventis* Lach. for *aequora venti*. *aequora ponti* Nic. Nicc. vulg. perhaps rightly, as the words are often confused: comp. I 276: and *ventis* is somewhat awkward. 629 *orbi* Junt. for *orbis*. *orbe* Flor. 31 Camb. Avanc. 632 *maris* B corr. Junt. (not Flor. 31) for *magis*. 638 *pede detulit* A corr. for *pede tulit*.

641 *mediocri clade coorta* Is. Voss. in ms. notes for *media grecia de coorta:* a fine and certain correction. *media de glade* Vat. 1954 Othob. *media de clade* 2 Vat. Pius in notes, Nauger. Lamb. *media quae clade* Avanc. *dia de clade* Fab. *Enceladi de clade* Bentl. before he knew Vossius' emendation. 642 *Flammea* Heins. in ms. notes for *Flammae*. 648 *dispiciendum* Nic. Nicc. for *despiciendum*. 652 corrupted by Junt. Lamb. etc. 653 *propositum* B corr. Ver. Ven. for *propositus*. *propositum est* Flor. 31 Camb. *plane* B corr. Flor. 31 Camb. for *plani*. 663 *nobis* Junt. Lamb. etc. for *morbi* which has come from 664. *orbi* Lach. 674 *quivis est* Bentl. for *qui visus*. *quivis ut* Heins. in ms. notes, and Is. Voss. in ms. notes. *qui non est* Lamb. *est* is added after *ei* by Flor. 31 Camb. 1 Vat. Lamb. 687 *contingit* Flor. 31 Brix. for *contigit*.

690 *Fert itaque* Heins. in ms. notes, and Lach. for *Fert itque.* *Fecitque* Nic. Nicc. *Vertitque* Is. Voss. in ms. notes. 695 *resorbet* Flor. 31 Camb. 3 Vat. for *resolvet:* a fine correction. 697: see Cambr. Journ. of phil. I p. 40, where I said that at least one verse is here lost: in the smaller ed. I proposed a verse such as this, *Fluctibus admixtam vim venti; intrareque ab isto:* which will serve to shew the general meaning. Lach. violently reads *penitus percocta in apertum* for *penitus res cogit aperto.* 701 *vertice enim* Turneb. advers. XXII 19 Is. Voss. in ms. notes Bentl. for *verticeni.* Turneb. also proposes and seems to prefer *vertigeni* which Lamb. ed. 3 adopts from him. *vertice item* Ald. 1 Junt. 702 *quod.* *quas* Junt. Lamb. etc. wrongly: see Lach. III 94.

705 *iacere* Flor. 31 Camb. Brix. for *iaceret.* 708 *nam neque* Flor. 31 Camb. for *namque.* 710 *Verum* Ald. 1 Junt. for *Utrum.* *contigit ei* (*eii*) Is. Voss. in ms. notes for *contioitel* A, *contioite* B, *contioites* Nic. Nicc. 2 Vat.: a certain correction. *concio dicat* Flor. 31 2 Vat. Ald. 1 Lamb. ed. 1 and 3. *concio credat* Camb. 1 Vat. Junt. Lamb. ed. 2. 719 *flabra* Flor. 31 Camb. Ver. Ven. for *flabro.* 727 *amni* Junt. for *amnis.* 729 *ei* A B Nic. Nicc. all Vat. Brix. Ver. Ven. *eius* Flor. 31 Camb. Ald. 1 Junt. vulg. before Lach. 730 *quod* Junt. rightly for *quo,* as *tunc* follows; but as Junt. writes it compendiously, no one before Lach. adopted it. 736 *descendere* Lamb. for *decedere.*

740 *quod.* *quo* Lach.: I now think him wrong. *quod..., nomen id* Flor. 31 Ald. 1 Junt. vulg. before Wak. *nomen aornis* Gervas. Tilleberiensis: see Lach. 743 *Remigii* Junt., *Remigi oblitae* Lach. for *Remigio oblitae.* 746 *substratus* Brix. Avanc. Nauger., *subiratus* (*substratus*) Ver. Ven. for *subiratus.* *Avernist* Ed., *Averno'st* Lamb., for *Averni.* Lach. inserts *est* before *si forte;* but the passage he quotes in support is not more in point than the one he cites in favour of *aut sex* in IV 303 (327), the metre there ruling the order of the words. 747 *Is* B. *His* A Nic. Nicc. *acri sulpure* Salmas. Heins. in ms. notes, Is. Voss. in ms. notes, Bentl. for *ecri suiper:* the readings of older editors are too absurd to mention. *montes* B, *montis* A Nic. Nicc. which is probably what Lucr. wrote. For *montes...aucti* Heins. suggests *olentes...agri.* 749 *Est et.* *Est ut* Lach. intolerant of *et* for *etiam.* 755 *ope sufficit* Ed. for *opus efficit:* a transposition of only two letters: comp. III 374. *vi ibus officit* Lach.: a harsh and inadmissible elision: see L. Mueller de re metr. p. 284. *loci hoc opus* Avanc. Lamb. *sua vi* Lamb. for *suapte.* 759 *si sint divis mactata.* *si fit divis mactatu'* Lach.: an awkward and uncalled-for change: see IV 934. *fit* seems hardly Latin, the structure of the sentence calling for a subjunctive. 761 *effiant causis* Lach. for *e fiant causis:* perhaps *ecfiant.* *e causis fiant* Flor. 31 Camb. 3 Vat. vulg. rightly perhaps. 762 *ne forte his* Ed. for *ne poteis.* *ne potis* A corr. Nic. Nicc.: perhaps *is* should be retained. *puteis* Turneb. *Puteis* Lach. i.e. *Puteolanis:* a quite unexampled form, and not I think suited to the context. *ne potius* Flor. 31 Camb. 2 Vat. etc.: hence Lamb. *ne his Orci potius.* *ne posita hiis* Wak. 763 *post hinc.* *posta, hinc* Junt. Lamb. etc. 764 *inferne* Lamb. for *inferna.* 768 *nam de re nunc ipsa* B. *de re* om. A: hence omitted or transposed in later mss. *namque ipsa de re* vulg.

771 *cibo quae sunt* Wak. first for *cibo eque sunt.* *homini quae sunt*

Lamb. etc. 777 *auris* (*aureis*) Ald. 1 Junt. for *auras*. 778 *aspera iactu* Ed. for *aspera tactu: iacere, adiectus* are specially said of smell, as II 846 IV 673: comp. also II 1047. Bentl. defends *tactu*, perhaps rightly. *aspera adactu* Lach.: but *adactu* implies a violent thrust or effort, as of a weapon, a tooth. *odore* Lamb. ed. 2 and 3. 780 *tristia* Flor. 31 Camb. Ver. Ven. for *tristitia*.

788 *ideo terris* Ald. 1 Junt. for *indeo tris*. 789 is rightly joined by Camb. Lamb. Gif. Wak. with 790. Creech Lach. etc. connect it with 788. 791 *acri* Lamb. ed. 2 first for *acris*. 793 *et spumas* Madvig in Henrichsen de fragm. Gottorp. p. 37 for *et pumos: spumas* Lamb. found in marg. of cod. Memmian. Lach. puts this verse after 801 and reads *et spumam ut* perversely: older corrections are unworthy of notice. 798 *labefactant* Flor. 31 Camb. Ver. Ven. for *labefaciant*. 799 *cunctare* Lach. for *cunctere*. 800 *et laveris, solio* Lach. for *effiueris solio*. *et frueris solio* Madv. l. l.: the passage is very doubtful. 803 *aquam* Flor. 31 Camb. Junt. for *aqua*. 804 *membra domus* Vat. 3276 Brix. Pius in notes, I. F. Gronov. Lach. for *membra domnus*. *domin'* Nic. Nicc. *dominus* Ver. Ven. Nauger. *donus* Flor. 31 Camb. 2 Vat. *membra domans* Junt. Is. Voss. in ms. notes, Madv. l.l.: rightly perhaps. *membra hominis* Lamb. *fervidior vis* Lach. for *fervida servis* A Nic. Nicc. *fervida fervis* B: the reading is most uncertain. *fervida febris* Lamb. Is. Voss. in ms. notes, Madv. perhaps rightly. *m. domus p. fervida, nervis Tum* Wak.: perhaps *m. domus p. fervidu', nervis Tum* is right. 805 *viri* Pius in notes, Lach. for *vini*. 806 *ipsa* Flor. 31 Camb. for *ipso*. 808 *argenti* Flor. 31 Camb. for *argento*. 813 *audisve* Flor. 31 Camb. for *audire*. 815 *necessis* Lach. for *necessest*. 817 *apertum* B. *aperta* A Nic. Nicc. vulg. before Lach. *apertaque* Flor. 31.

818 *et*. *ea* Lach. ever intolerant of *et* for *etiam*. *alitibus* Flor. 31 Camb. for *malitbus*. 829 *fit*. *sit* Junt. Lamb. vulg.: a solecism. 832 *hic* Lach. for *hinc*. *linquatur* Flor. 31 Camb. Ver. Ven. for *linquitur*. 840: clearly something is wanting to connect this verse with what precedes. Lach. has proved that a new leaf, the 142nd, of the archetype began here: in all probability then one leaf had dropped out in this place. Lach. inserts four fragments, *Non mihi si linguae centum sint oraque centum Aerea vox*. *Mensibu' frigus*. *Cameraeque caminis*. *Ne oblimet*. The first certainly appears Lucretian: where it came in the poem, cannot be said; the rest are very doubtful. 840 *Que* is prefixed to *Frigidior* in A, *uae* (i.e. *quae*) in B, *Cur* by Nic. Nicc. 841 *Rarescit* Lamb. for *Arescit*. *semina* Flor. 31 Camb. for *semi*. *si quae* Avanc. at end of Catullus for *siqua* which he kept in Ald. 1 as did all editors before Lach. 842 *habet, propere* Nic. Nicc. Camb. Ver. Ven. vulg. for *habet propris* B Flor. 31, *propriae* A. *proprii* Bern. whom I followed in small ed. forgetting that Nic. Nicc., i.e. Poggio's ms. in all likelihood, had *propere*. 846 *ut coeundo* Lamb. for *in coeundo*. *in quo eundo* Nic. Nicc.

851 *raptim* Lamb. for *partim*. 857 *supter* (*subter*) Ald. 1 Junt. for *super*. 858 *satiare* Vat. 1954 Othob. Pius in notes, Turneb. advers. XXVI 13 for *soclare*. *sotiare* Camb. Avanc. *sol dare* Nic. Nicc. *sociare* Flor. 31 Junt. *donare* Bern. 862 *Rara* Lamb. Turneb. adv. XXVI 13 for *Para*. *tepet* Lach. for *tenet*. 864 *umbris* Avanc. at end of Catull.,

Junt. for *undis*. 865 *penitus* Lach. for *sonitus*. *subtus* Ald. 1 Junt. vulg. 868 *aqüae* Lach. after Bede for *laticis:* Lamb. too notices it in notes. *saporem* Lamb. for *vaporem:* a necessary change, though Bede also has *vaporem*. 870 *gliscente* Wak. for *miscente*, 'eleganter et vere' says Lach. 877 *Dimittat* Camb. for *Demittat*. 878 *nodosque* Vat. 3276 (not Flor. 31) Ald. 1 Candidus at end of Junt. for *nobosque*. *novosque* A corr. *venasque* Flor. 31 Camb. 3 Vat. Junt.

879 *Frigidus* Flor. 31 Camb. Ver. Ven. for *Frigus*. 887 *Non ita multa* Is. Voss. in ms. notes for *Non ita muita:* though Haverc. knew of this, neither he nor any editor before Lach. adopted it. *Non tam vita* Nic. Nicc. *Non tam viva* vulg. 888 *Propterea* Lach. for *Praeterea*. 890 *marist Aradi fons* Bern. Lach. for *maris parat fons:* a certain correction, as A and B have each this heading 'de fonte aradi in mare.' *mari Aradio fons* Is. Voss. in ms. notes. *mari spirat fons* Flor. 31 Camb. etc. 892 *praebet* Flor. 31 Camb. Junt. for *praeter*. 894 *dulcis* Flor. 31 Camb. Ver. Ven. for *dulcit*. 896 *quo* Lamb. for *que*. 897 *aut in tedai corpore* Is. Voss. in ms. notes for *aut indeda corpora*. *in teda cum corpora* Ald. 1 Junt. 898 *quia* Flor. 31 Camb. etc. for *qui*. 899 *latentis* Bern. for *tenentes*. *tepentis* Lach. 907 *lapis* B corr. Flor. 31 Camb. for *lapsi*. 908 *Quem* B corr. Flor. 31 Camb. for *Quam*. 909 *fit*. *sit* Nic. Nicc. Flor. 31 vulg. 'parum Latine' says Lach.: but it is I think defensible, as giving their motive, not the poet's inference: comp. III 100 *Harmoniam Grai quam dicunt, quod faciat nos*. *ortus*. *ortu* Lach. as II 387. 912 *Quinque* B corr. Flor. 31 for *Qui neque*. 913 *demissos* Lamb. first for *demisso*. 916 *permananter* Flor. 31 Camb. for *permanater*. *pervolat* Turneb. adv. XXVI. 13 Bentl. for *pervalet*. 935 again om. by Lach.: see IV 229.

937 *claret* Flor. 31 Camb. for *clare*. 941 *mixtum corpus* Brix. (not Flor. 31) for *corpus mixtum*. 942 *superne* Lach. for *superna*. 954 *Galli* Lach. for *caeli*. *coli* Nic. Nicc. *colli* Brix. Ver. Ven. Avanc. Nauger. Wak. *corpus* Junt. Lamb. ed. 1 and 2. *corii* Flor. 31 Camb. 3 Vat. Lamb. ed. 3. 955 (956) *tempestates.. coortae* Avanc. followed by Nauger. Lamb. etc. rightly for *tempestatem.. coorta*. *tempestate in.. coorta* Lach. 956 (957) *iure* B Vienna frag. A corr. Flor. 31 Camb. all Vat. *in re* Nic. Nicc. which is the same thing. *iurae* A p. m. caused by *remotae*, not as Lach. says because the archetype had both *iure* and *iura* which he reads and I read in my small ed. 957 (958) I have placed here: rightly as all will allow who compare 1098 sqq: see Camb. Journ. of phil. I p. 41. Lach. most awkwardly puts it after 947. Bern. retains it in its place and reads *E tempestate in.. coortast...remotas:* but *remotae* clearly belongs to *tempestates*. 958 *raro corpori' nexu* Lach. for *raro corpore nexum*.

962 *sol* Flor. 31 Camb. etc. for *quo*. 964 *que* added by Flor. 31 Ald. 1 Junt. *extructas ningueis* Avanc. at end of Catull. *alte Extructas ningues* Nauger. 965 *liquefit*. *liquescit* Vat. 640 Urbin. Ver. Ven. Ald. 1 Junt. Lamb. 'liquescit. s' Heins. in ms. notes: but on this cod. Modii see introduction p. 19. 971 972 *ambrosiae quasi vere et nectari' linctus: Qua...amariu' frondeat esca* Lach. for *ambrosias quasi vero et nectare tinctus Qua...marius fronde ac exscet* A, *extet* B Vienn. fragm. Nic. Nicc.: *amarius* Flor. 31 Camb. 2 Vat.: this brilliant emendation

supersedes all former and later attempts. 973 *amaracinum* Junt. first for *maracinum*. 977 *iucunda* Camb. Ald. 1 Junt. Gif. for *ciunda* A, *inunda* B. *iocunda* Flor. 31 2 Vat. *munda* Nic. Nicc. *res munda* Lamb.

986 987 *alio, alioque, alio. alia, aliaque, alia* Lamb. 988 989=995 996 (996 997). 991 (992) *lignis* Wak. Lach. for *ignis*. *tignis* Flor. 31 Camb. Ald. 1 Junt. *per ligna* Lamb. 997 (990) first placed here by Lamb. not Wak.

1001 *pelliciat vim* Flor. 31 Camb. etc. for *peliciatum* B, *perliceatum* A. 1006 *ferri* Flor. 31 Camb. for *ferre*. 1007 *fit utque* Nauger. for *fit ut qui*. 1009 *ex* added by B corr. Flor. 31. *tunc* Camb. 1011 *natura et* Wak. for *naturae*. 1012 *quod dico, ibus ex elementis* Ed. for *quod dicitur ex elementis*. *quo ducitur* Lach. which I do not understand. *quod paulo diximus ante* Lamb. wildly. *quod ducitur,* [*ex elementis*] Bern. 1013 *e ferro* B Camb. Avanc. *te ferro* A. *te ferre* Nic. Nicc. whence *referre* Brix. Ver. Ven. *de ferro* Flor. 31 Junt. vulg. before Lach. 1018 *e* Flor. 31 Camb. for *et*. *ex* Ver. Ven. 1020 *plagis* Flor. 31 Camb. for *plagit*. 1022 1023 not a letter is to be changed: only the stopping is to be mended. *item. utei* Lach. *iuvatur. iuvetur* Lach. Wak. has been misled by a blunder of Haverc. 1025 *magis* Camb. Ver. Ven. for *magnis*. *magis locus* Flor. 31. 1026 (1033) first placed here in Ald. 1 and Junt. 1027 (1026) *Aer a tergo* Ald. 1 Junt. for *Erat ergo*. 1032 (1031) *Parvas*. *Privas* Gif. *Primas* Lamb. ed. 3. 1033 (1032) *ventus* Pius for *ventis*. 1040 *ille* Lach. for *illo* B Vienn. frag.: om. A Nic. Nicc. Camb. etc. *atque* Flor. 31 Junt. vulg. *isque* Wak. conj.

1047 *ab saxo* Lach. for *a saxo*. 1059 *Et* Lach. for *At* B A corr. *Ad* A p.m. *Ac* Nic. Nicc. Flor. 31 Camb. vulg. 1062 *Interutraque* Lach. for *Inter utrasque*. 1064 *eam* Ald. 1 Junt. for *eum*. *flumine* Nic. Nicc. Flor. 31 all Vat. Brix. Ver. Ven. for *flumina*. *flumina saxi* Wak. 1067 *singlariter* Flor. 31 Avanc. Nauger. vulg. for *singulariter:* comp. 1088 *coplata* p.m. *copulata* corr. *inter singillariter* Lach.: a most unrhythmical verse. *apta* Flor. 31 Camb. etc. for *aptam*. 1068 *vides* Ald. 1 Junt. for *vide*. *colescere* Lach. for *coolescere*. *coalescere* Nic. Nicc. Flor. 31 3 Vat. 1069 *uno* Lach. for *una*, as in 1074: but Junt. Lamb. etc. there read *una: uno* is not I think certain. 1072 *aqüai*. *in aquai* Ald. 1 Junt. vulg. wrongly: comp. 552 and 868. 1077 *eluere* B corr. Vienn. frag. for *eiuere* B, *eiuvere* A Nic. Nicc. 1078 *non auro res* Faber em. for *non res auro* B, *res auro* A Nic. Nicc. 1079 *Aerique aes* Lamb. excellently for *Aeraque*. 1083 *praestat* B Avanc. Bentl. *restat* A Nic. Nicc. vulg. 1089 *fieri* Flor. 31 Camb. etc. for *ferri*.

1091 *cladem* B corr. Ald. 1 Junt. for *cradem*. 1099 *extrinsecus* B Ald. 1 Junt. *intrinsecus* A Nic. Nicc. etc. 1100 *coortae* Lach. for *coorta*. 1101 *putorem*. *putrorem* Nauger. Lamb. etc. 1106 *Brittanni* Ed. for *Brittannis*. *Britannum* Lamb. 1109 *colore* Flor. 31 Vat. 640 Urbin. Ald. 1 Junt. for *calore:* so 722. *percoctaque saecla calore* Vat. 3276 Brix. Nauger. Lamb. 1115 *Aegypto* Flor. 31 Junt. for *Aegypta*. *Aegypti* Nic. Nicc. Ver. Ven. hence *Aegypti in medio* Avanc. 1121 *Ut* Ald. 1 Junt. for *Ve*. 1122 *graditur conturbat* Flor. 31 Camb. Brix. for *graditus conturbas*. *Quadragitas graditus conturbas* Nic. Nicc. Ver. Ven.

1124 *reddatque* Flor. 31 Camb. for *reddetque*. 1132 *balantibus* Flor. 31 for *calantibus*. *talaribus* Nic. Nicc. old eds. 1135 *ultro* Avanc. for *vitro*. *intro* Nic. Nicc. *vitio* Flor. 31 Camb. *alienum* Bentl. for *corumptum:* so 1119 and 1124: *corruptum* being a mere gloss, though read by Isidorus de nat. rer. 39. *coortum* Lach. *inimicum* Io. Colombinus ap. Lamb. *cruentum* joint emend. of Lamb. Turneb. and Auratus. *coruptum* Lamb. ed. 1 and Wak.

1138 *mortifer aestus* Macrob. sat. VI 2 7, Ald. 1 Junt. Lamb. for *mortifer ae:* the last letters having dropped out. *mortifer aer* Lamb. in notes. *mortiferai* Camb. *morti' ferai* Lach. who is then driven to read in 1141 *morbus* for *ortus: orcus* Avanc. 1139 *in Cecropis* Macrob. l. l. Flor. 31 Camb. Junt. for *in Cecropit*. *in Cecropiis* A corr. Nic. Nicc. etc. *Finibu' Cecropiis* Lamb. 1143 *omnei* Lach. *omni* Avanc. for *omnem* A Nic. Nicc. *omne* B. *omnes Unde* Junt., *omnes Inde* Brix. Nauger. Lamb. etc. 1147 *atrae*. *atro* Vat. 640 Urbin. Ald. 1 Junt. Lamb. *artae* mss. of Macrob. VI 2 9. 1156 *tum* added by Wak. after *prorsum*. Flor. 31 Ver. Ven. vulg. add *et* before *omne:* perhaps rightly. 1165 *potius* Ald. 1 Junt. for *totius*. 1167 *dum*. *cum* A corr. Nic. Nicc. vulg. before Lach. 1171 *Vertere in utilitatem* Lamb. for *verteret utilitatem:* but he reads also *posset* and suggests *quicquam* in 1170 without cause. *at ventum* Lach. for *ad ventum* which the older editors keep and connect with what follows. *frigora* Flor. 31 Camb. for *frigore*. 1174 (1178) brought here first by Nauger.: placed after 1171 by Junt. *lymphis* Flor. 31 Camb. for *nymphis*. 1176 (1175) *mersans* A Nic. Nicc. etc. *inerrans* B. *messans* Vienn. frag. acc. to Rhen. Mus. n. f. XV p. 409. *inurens* Bern.: but clearly B's reading is a mere clerical error. 1178 (1177) *mali* mss. of Macrob. VI 2 13, Brix. for *mari*. 1180 *ardentia morbis*. *ac nuntia mortis* Lach.: a fine, but not I think necessary emendation.

1186 *spiritus* Macrob. Flor. 31 Camb. for *spiritum*. 1187 *umor*. *humor* mss. of Macrob. VI 2 11 for *umum*. 1189 *raucas* mss. of Macr. l. l. Avanc. for *rauca*. *tussi* Junt. for *tusse*. *tussis* mss. of Macr. 1195 *in ore trucei* Ed. for *inoretiacet* B Vienn. frag. *inhoretiacet* A. *inhorret iacet* Nic. Nicc.: the *-et* is the common corruption of the old termination *-ei;* comp. 16 *coget* for *cogei* and 1199; so I 84 mss. *Triviat*, II 636 *Armat et*. *rictum* Lamb. for *rectum*. *Duratusque horret rictus* Vat. 3276. *inhorrescens rictum* Lach. after Rutgersius. *inhorrebat rictum* Lamb. *in ore iacens rictu* Nonius. *tenta tumebat* Heins. in ms. notes and Lach. for *tenta mebat*. *tecta meabat* Nic. Nicc. *tenta meabat* Flor. 31 Camb. 2 Vat. *tenta manebat* Nonius B corr. Vat. 3276: see Camb. Journ. of phil. I p. 374. 1196 *rigidi* Lach. for *rigida*. *post artus*. *post strati* Lamb. *prostrati* Junt. 1199 *ibei* Ed. for *ut est: ibei* became first *iuet*, then *ut est:* see n. to 1195. *vix* Lach. without force. 1200 *Ulceribus* Lamb. after Thucydides for *Viceribus: i* and *l* confused as in 500 other places: so 1271 *Viceribus*. *Visceribus* A corr. Nic. Nicc. vulg. here as there. Wak. in both places argues for *visceribus:* but A and B 1166 had *Et simul viceribus;* 1148 *Sanguine et viceribus;* V 995 *super viscerat tetra*, *viscera* A corr.; IV 1068 *Vicus enim*, *Ulcus* A corr.: thus in every place where the word occurs in Lucr., our sole original authority substituted *i* for *l:* this may serve to shew on what sandy foundations Wak.

builds, when he maintains *iacere coniectum umorem* against *conlectum*, or *lacere in fraudem* against *iacere*, and a hundred suchlike cases. 1205 *qui* Lamb. for *cui*. 1212 *his* Brix. Junt. for *iis*. *is* Flor. 31 Camb. *incesserat* Lamb. for *incusserat*. 1217 *exeiret* Lach., *exiret* Brix. for *exciret*. 1219 *solibus*. *sedibus* Macrob. VI 2 14, Brix. Junt. 1220 *nec tristia* Macr. l. l., Brix. Avanc. for *nectia*. *nec fortia* Flor. 31 Camb. 2 Vat. Junt. *nec noctibu'* Lamb. *nec noxia* Is. Voss. in ms. notes, Heins. in ms. notes who also proposes *nec inertia*. 1221 *Exeibant* Lach. for *Exicbant* A, *Exibant* B, *Exiebant* Nic. Nicc. 1225 in my small ed. I placed before 1235: I still think that the poet's words would thereby be rendered more consecutive; but I now see that 1235 should not be severed from 1234, Lucr. having misapprehended a sentence of Thucydides: I have therefore now left 1225 in its place, as an imperfect fragment, all this last part of the poem being manifestly in a very unfinished condition.

1234 *amittebat* B rightly. *imittebat* A. *mittebat* Nic. Nicc. whence much error. 1235 *apisci* Flor. 31 Camb. Brix. for *apiscit*. 1237 (1245) placed here by Bentl. after Thucyd.: Junt. Lamb. etc. put it after 1242 (1241). 1239 (1238) *visere* Flor. 31 Camb. for *utsere*. 1241 (1240) *Poenibat* Turneb. ap. Lamb. for *Poenibus at* (i. e. *Poenib. at*) B, *Poenibus et* A Nic. Nicc. etc.: comp. V 1071. 1242 (1241) *incuria* Flor. 31, *in curia* Brix. Ver. Ven. for *incura*. 1247 one or more verses are evidently lost here, or the passage was left in an unfinished state. 1249 *in lectum* Junt. for *iniectum*. 1250 *morbus* Flor. 31 Camb. for *morbo*.

1259 *ex agris is maeror* Ed. for *ex agris maeroris*. *is* was absorbed by *agris;* then *maeroris* was written to fill up the verse. 1260 *Confluxit, languens*. *Confluxit labes*, Lach.: a violent alteration. 1262 *conplebant*. *complebat* Junt. *complebant* Lamb. for *condiebant*. *condebant* A corr. Nic. Nicc. etc. *astu* Lach. for *aestus*. *aestus* however agrees so entirely with the words of Thucydides, that I am inclined to think a verse has fallen out such as *quo magis aestus Conficiebat eos* cet. *aestu* Junt. Bern. 1264 *protracta* Lach. for *prostrata:* Wak. reads *structa* for *strata* in 1265. 1265 *iacebant* Ver. Ven. for *tacebant*. *tacebant* Nic. Nicc. with *i* written over *t:* hence, while Flor. 31 Camb. etc. keep *tacebant*, Ver. Ven. which usually adhere to the older text of Nic. Nicc., have the corrected reading. 1271 *Ulceribus* Lamb. first for *Viceribus*. *Visceribus* A corr. Nic. Nicc. Flor. 31 Camb. all Vat.: Lach. separates 1269 from the context by [ ]. 1274 *manebant* Camb. Brix. vulg. for *manebat* A, *manebit* B. *tenebat* Lach. 1279 *Quo pius* Is. Voss. in ms. notes, Wak. Lach. *Huo pius* A Nic. Nicc. Camb. 2 Vat. Brix. Ver. Ven. *Quo prius* B Vienn. frag. Lamb. *Ut prius* Flor. 31 2 Vat. Avanc. at end of Catull. Creech. *Ut pius* 1 Vat. Ald. 1 Junt. 'Lucretii ingenium parum cognoverunt qui praeoptant *prius*' says Lach.: yet the οἷς πρότερον ἐχρῶντο of Thuc. II 52 speaks strongly in favour of B and Lamb.: comp. Virg. Aen. IV 464 *piorum* Med. *priorum* Vat. Pal. etc. 1280 *trepidabat* B. *repedabat* A Nic. Nicc. Flor. 31 Camb. 2 Vat. etc. 1281 *praesenti* added by Ed. *conpostum* Lach. *consortem* Flor. 31 Camb. before, Junt. Lamb. etc. after *pro re*. *cognatum* Avanc. 1282 *res subita et* Camb. Vat. 1136 and 1954 Othob. for *subita et* A, *subita fit* B. *res subitae et* Lach. *vis subita et* Flor. 31 Vat. 640 Urbin. Ald. 1 Junt. Lamb. *mors subita et* Bern. 1285 *faces* Flor. 31 Camb. for *fauces*.

LUCRETIUS.

NOTES II,

EXPLAINING AND ILLUSTRATING THE POEM

JEROME in his additions to the Eusebian chronicle has these words *Titus Lucretius poeta nascitur qui postea amatorio poculo in furorem versus, cum aliquot libros per intervalla insaniae conscribsisset, quos postea Cicero emendavit; propria se manu interfecit anno aetatis* XLIV. Donatus in his life of Virgil writes thus according to Reifferscheid Suetonii reliq. p. 55, *initia aetatis Cremonae egit* [*Vergilius*] *usque ad virilem togam, quam* XV *anno natali suo accepit isdem illis consulibus iterum duobus quibus erat natus, evenitque ut eo ipso die Lucretius poeta decederet.* If this be true, Lucretius died about the ides of October U. C. 699 in the second consulship of Pompey and Crassus. His birth then would fall to the year 655. But the passage of Jerome is assigned to ol. 171 2 by Scaliger and most of the older authorities as well as by Mommsen Abh. d. saechs. Ges. II p. 677 and Reifferscheid l. l. p. 38. Mai alone in his edition of the chronicle, script. vet. coll. VIII p. 365, gives it to the year 655: on what authority? mere conjecture, I fear, in order to adapt it to the account of Donatus, though in his preface he says that this part of the chronicle has been entirely changed by the help of many Vatican mss. However that may be, whether Jerome or his copyists are in fault, 655 must I think be right; for no one who has read what so many scholars have written on the question, Joseph Scaliger, Ritschl parergon p. 609—638, Mommsen l. l. p. 669—693, Reifferscheid l. l. p. 363—425, and others, will doubt that Jerome's additions are servilely copied from the lost portion of Suetonius de viris illustribus, nor feel much less confidence that Donatus' account comes also from the same source. These are the sole circumstances recorded of his life; nor is anything whatever known about his family: indeed the only other instance I have been able to find of the cognomen Carus

attached to the name of Lucretius is a very doubtful one occurring in Mommsen's inscr. reg. Neapol. Lat. 1653 'Beneventi in aedibus archiepiscopi.' As Suetonius took great pains in searching out the best original authorities for all his statements, the facts mentioned above, even if somewhat coloured, must be accepted as true in the main, as Lachmann observes p. 63; the more so that in February of the year 700 Cicero writes to his brother Quintus II 11 the well-known sentence *Lucretii poemata ut scribis ita sunt* cet. This is the only occasion on which he ever mentions the poet's name, and it proves that four months after the death of Lucretius he and his brother Quintus had read the poem which, as we saw in the introduction to notes 1, could not have been published in the author's lifetime. Now this seems too short a time for the Ciceros to have read and to be writing about the work, if neither of them had had anything to do with preparing it for publication. But to which of the two brothers does Jerome allude? in Latin or English when Cicero or Cæsar is mentioned, if there is nothing else to determine who is spoken of, the orator or the dictator is naturally implied; and Jerome in a dozen of his additions to the Eusebian chronicle thus denotes Marcus. But both Lachmann and Bernays decide that Quintus must be meant: 'in re nota' says the former 'nihil opus fuit ut Ciceronis praenomen poneret, cum nemo ignoraret Quintum intellegendum esse.' But why it should be a *res nota* to Jerome and his contemporaries or even to Suetonius I cannot see. Had Jerome found Quintus in his original, he must have added it, nor would Suetonius himself have omitted to express it. Nor can I perceive the least internal probability in favour of Quintus; who in those very months must have been thinking more of the art of war than the art of poetry; for in the summer of 700 he was fighting as Cæsar's legate in Gaul and Britain. And why should not Marcus be the editor? he does not appear to have been very actively employed during those months; and moreover he was one of those busy men who always find time for any fresh work they are called upon to do. It may have been a dying request of the poet's; for it is more than likely from what he says of Memmius that he would look on Cicero with admiration and esteem him as the saviour of his country. Cicero's virtues and abilities were just of the sort to excite the love and wonder of a retired student, who is more apt in practice to overrate than undervalue those who are engaged in active life, whatever his speculative sentiments may be. And here we are not left solely to conjecture: the many imitations we find in Lucretius of the few hundred extant lines of Cicero's Aratea prove, little as it might have been expected, that he looked upon this translation as one of his poetical models. Cicero, though he set small store on Epicurus and his system, was on terms of intimate friendship with the leading

epicureans both Greek and Roman: to one of them, Philodemus as it now appears from the Herculanean fragments recently published, we know he was greatly indebted in his de natura deorum. And if Lucretius were quite unknown to him, a word from Atticus or even from Memmius would have made him undertake what would seem so slight a task to a man of his laborious and energetic habits. The poem must have been given to the world exactly as it was left by the author, with nothing added or taken from it to all appearance. If Cicero then was editor, he probably put it into the hands of some of his own amanuenses or entrusted it to the large copying establishment of Atticus; and he may have spent only a few hours in looking over it or hearing it read to him: his name rather than his time was probably wanted by the friends of Lucretius. All this would of course be the idlest guess-work, if it were not for the express statement of Jerome, that is of Suetonius, that he was editor; a statement which is in some measure confirmed by the younger Pliny epist. III 15 who thus writes to his friend Proculus, *Petis ut libellos tuos in secessu legam examinemque an editione sint digni, adhibes preces, adlegas exemplum; rogas etiam ut aliquid subsecivi temporis studiis meis subtraham, impertiam tuis: adicis M. Tullium mira benignitate poetarum ingenia fovisse.* The *exemplum* in question may well have been the poem of Lucretius. Professor Sellar Roman poets of the republic p. 203 though not inclined to admit the editorship of Cicero, yet argues that Jerome must be speaking of Marcus.

However this may be, it is certain enough that the poem was given to the world early in the year 700, and in the unfinished state in which it was left by the author: indeed I hardly like to say how strong my suspicions, even my convictions are, that many of the most manifest blunders in the poem as we now have it, appeared in the very first edition of it whether from design or inadvertency. It is not easy in any other way to explain the agreement of Macrobius and Nonius with the archetype of all existing manuscripts in many indisputable corruptions. The story of his madness has been examined by Prof. Sellar l. l. p. 200. Whether there is any truth in it or not, it cannot be doubted that it was already current in Suetonius' time; yet few will deny 'that it would be strange if so remarkable a poem had been written in the lucid intervals of insanity.' This poem was designed to be a complete exposition of the physical system of Epicurus, not for the sake of the system itself, but in order to free the minds of men from the two greatest of all ills, fear of death and fear of the gods, by explaining to them the true nature of things. So far he followed in the steps of his master who with the same end in view composed among many other works one entitled περὶ φύσεως in 37 books, of which some wretchedly scanty and incomplete fragments have been published

in the Herculanean volumes. How much Lucretius was indebted to this larger work may be gathered from the letters of Epicurus preserved in the tenth book of Diogenes Laertius which give a brief epitome of his system and have been so largely used in this commentary. The poet's veneration for his teacher would constrain him to borrow from him his matter; his manner and style are altogether different. To Lucretius the truth of his philosophy was all-important: to this the graces of his poetry were made altogether subordinate. To us on the other hand the truth or falsehood of his system is of exceedingly little concern except in so far as it is thereby rendered a better or worse vehicle for conveying the beauties of his language and the graces of his poetical conceptions.

Is then the epicurean system well or ill adapted to these purposes? As a poet can scarcely be the inventor of a new system of philosophy, Lucretius could hardly help adopting some one of those which were then in vogue; if not the epicurean, then the academical or peripatetical or stoical. To construct a poem out of either of the first two with its barren logomachies, wire-drawn distinctions without a difference, would have truly been to twist a rope out of sand: of course I am speaking of these two systems as they were in the days of Cicero and Lucretius. Well then the stoical? I unhesitatingly assert that for all purposes of poetry both its physical and ethical doctrines are incomparably inferior to those of Epicurus. Read the de natura deorum; compare their one wretched world, their monotonous fire, their rotund and rotatory god, their method of destroying and creating anew their world, with the system of nature unfolded by Lucretius, grand and majestical at least in its general outline. Then look at their sterile wisdom and still more barren virtue with their repudiation of all that constitutes the soul of poetry. Lucretius on the other hand can preach up virtue and temperance and wisdom and sober reason with as loud a voice as any of your stoics; and then what inexhaustible resources does he leave himself in his *alma Venus* and *dux vitae dia voluptas*! Are examples wanted? then contrast the varied grace and exuberant beauty of Virgil, when he is pleased to assume the garb of an epicurean, with the leaden dulness and tedious obscurity of the stoic Manilius; or compare the rich humour and winning ways and ease of a Horace with the hardness and thinness and forced wit of a Persius. All this it may be said is in the men, not their systems. Yes, but the proper choice of a subject is half the battle. And yet the picturesque English historian speaks of the epicurean as the meanest and silliest of all systems; and one German critic after another sees fit to denounce it as beneath contempt. In this as in many other points the poet has received more justice at the hands of his latest English critic. Lessing in his essay to prove that Pope because a poet could not be a metaphysician says 'if I am asked whether I know

Lucretius, whether I know that his poetry contains the system of Epicurus, I would confidently answer, Lucretius and the like are verse-makers not poets;' and again 'the poet speaks with Epicurus, when he would extol pleasure, and with the porch, when he would praise virtue.' But this is what Lucretius can and does do: virtue at all events he can praise on the broad grounds accepted by the general feeling of the world, if he is unable to adopt the narrow and intolerant views of his adversaries.

Lucretius possessed indeed in as high a degree as any Latin poet two qualities which a poet can ill dispense with, the power of vividly conceiving and of expressing his conceptions in words. This has enabled him to master the great outlines of the epicurean universe of things, and by a succession of striking images and comparisons drawn from the world of things which was going on before the eyes of him and his readers to impress this same outline on their minds. The two first books appear to be quite finished and to have received almost the last touches of the author with the exception perhaps of a few lines in the first and certain portions of the second, pointed out in their several places. The greater part of these books is devoted to a very complete and systematical account of the natures and properties which belong to the two great constituents of the universe, atoms and void. Given to him this universe in working order there is much that is striking, much even that may be true, much at all events that Newton accepted, in this description. We of course care, not for its scientific value or truth, but for its poetical grandeur and efficacy upon our imaginations; and in these respects we are most amply satisfied. The least interesting portions of these books are perhaps the episodes in which the rival systems of Heraclitus Empedocles and Anaxagoras are examined and refuted. They are closely connected with the general subject and the poet is much in earnest, but, as was indeed to be expected and as is pointed out in the proper place, he could only criticise them from his own point of view and starting from his own principles. The third book is likewise highly finished; and in no portion of his work does he more fully display his power of sustained and systematical reasoning. Here too, if his premisses are granted, his arguments are striking and effective, and carried through with the energy of a fanatical conviction. The poetry and pathos and earnest satire of the last 260 verses are of a very high order. The fourth book is in a much less complete condition than those which precede. Yet in the first part of it, in which the epicurean theory of images is expounded, he wrestles with its gigantic difficulties and often overcomes them with singular power energy and controversial address. And in truth the most obvious objections to this doctrine of images apply almost as strongly to the Newtonian theory of the emission of light which in spite of them so long maintained its ground. The later sections of the

book, which explain the operations of the other senses, the way in which the mind and the will are excited, the theories of food walking sleep and the like, are more sketchy and unfinished, though they often shew acute observation. The concluding two hundred verses are very peculiar and display a satirical vein as powerful and much more subtle than that of Juvenal. The fifth book is also unequal: some few lines, pointed out in their place, are almost unworthy of the poet and seem to have been written down to fill up a gap until he found time to change them for better. The portions too in which he describes the movements of the sun and moon and stars will not afford any great gratification. But more than half the book, namely 416—508 and 771 to the end, are in his noblest manner. Nothing in Latin poetry surpasses, if it even equals these verses, in grandeur sublimity and varied beauty: occasionally too some fine touches of earnest satire are met with: in these passages, as well as in those mentioned above, he nobly maintains the reputation claimed for his countrymen in that style of writing. The sixth book is unequal like the fifth: the beginning as far as 95 is very unsatisfactory and confused, as has been pointed out in the notes. Then follow some hundred verses in which the nature and working of thunder and lightning, the formation of clouds rain and the like are described. This portion is most carefully elaborated. There is not much room for the highest virtues of poetry; but still great qualities are here brought into play, quickness of observation and power of describing what is observed, vivacity of narrative, fine perception of analogy and much ingenuity of speculation: the language is simple terse direct telling. Most of these merits are displayed in greater or less measure even in the flattest and most prosaic portions of the poem; but the verses here spoken of are not of this number. Quite recently I was glad to find the opinion I had long entertained of this section of the poem confirmed by the greatest of German critics in Riemer's Mittheilungen ueber Goethe II p. 645; and this is not the only place in which Goethe expresses the most unbounded admiration for our poet. What follows is not so satisfactory: Lucretius has to include a great variety of questions in a very limited space. These seem to be selected sometimes at hap-hazard: nearly 200 lines are given to the magnet, good and lively verses enough and very ingenious, but out of all proportion to the subject-matter. The description of the plague of Athens concludes the book: it is manifestly unfinished; and though it contains much noble poetry, it suffers from the unavoidable comparison with the austere beauty and simple grandeur of its original, which the poet has not always understood and from which he has sometimes departed without good cause. He has shown himself here both too much and too little of a physician: he is too technical for the poet, too inaccurate for the philosopher.

In style and language Lucretius has manifestly adopted a somewhat archaic tone, differing more or less from that of his extant contemporaries. This has been occasioned mainly by his admiration for Ennius and Naevius and the old tragic poets Pacuvius and Attius: their extant fragments prove how carefully he had studied them. In Greek literature too his tastes seem to have carried him to the older and more illustrious writers. In this as in so many other respects he seems to have stood quite aloof from the prevailing fashions of his day; for the great mass of contemporary poets, among them even Catullus at all events in his heroic and elegiac poems, chose to form their style after Euphorion of Chalcis and the affected Alexandrine school of poets, Callimachus and the rest, whose influence extended far into the Augustan age, though they wrote in what was to themselves really a dead language. It is owing probably in great measure to his admiration for Lucretius that Virgil and thereby Latin poetry were saved from falling even more than they did under this baneful influence. Epicurus of course Lucretius would study for other purposes than those of style, in which he would have found him but a sorry master; but the Greek writers still wholly or partly extant, whom, to judge by his imitations of them, he most loved and admired, were Homer Euripides Empedocles Thucydides and Hippocrates. Doubtless too he had carefully studied the old philosophers Democritus Anaxagoras and Heraclitus, but mainly for their philosophy. Plato he would seem to have known something of from more than one passage of his poem. His illustrious contemporary Cicero had like him an intense esteem for Ennius, a profound contempt for the 'cantores Euphorionis' who presumed to despise Ennius. Many years before Lucretius wrote his poem Cicero in boyhood had translated the works of Aratus. This translation of which large fragments are preserved shews much spirit and vivacity of language, though its poetical merits cannot be mentioned beside those of Lucretius. Yet the latter strangely enough, moved it may be by his general admiration for the man, had made this youthful production one of his models of style, as may be demonstrated, not by one or two, but by twenty manifest imitations of the few hundred lines still existing. In poetical diction and metrical skill Lucretius has surpassed not only this boyish essay, but doubtless their common master Ennius as well; for the first inventor is naturally left behind by his followers. Yet Lucretius undoubtedly wished it to be known that the latter was his master and model in Latin poetry. Free from all jealousy and empty pretension, and in this as in so many other respects unlike his teacher Epicurus, he took every opportunity of acknowledging his obligations to those to whom he felt indebted: first and foremost to Epicurus who shewed the path which leads to truth and reason without which all other gifts were vain, and after him to Demo-

critus and the other early Greek philosophers. Empedocles receives his homage partly as one of these, but mainly because he gave him the best model of a philosophical poem. Ennius is extolled at the beginning of his work as his master in Latin verse. Lucretius thus to all appearance stood aloof from the swarm of contemporary poets and left them to quarrel and fight among themselves, as even the best of them seem to have been ready to do. The Augustan poets of the first rank afford a rare and most pleasing example of brotherly harmony and good feeling; but if Catullus and Calvus had not died in early manhood, there are many indications that they and their school would have come into painful collision with Virgil and Horace and their partisans. Lucretius we cannot picture to ourselves as joining in the lampoons on Caesar, much as to all appearance he disapproved of his policy.

Notwithstanding the antique tinge which for poetical ends he has given to his poem, the best judges have always looked upon it as one of the purest models of the Latin idiom in the age of its greatest perfection. Fifty vouchers might be cited for this; but the following will suffice: the prince of critics declares emphatically in the scaligerana that there is no better writer than Lucretius of the Latin language. Lambinus and Lachmann have certainly not been surpassed in modern times as Latin scholars and Latin writers, and both moreover studied Lucretius with unwearied diligence: the former who edited Plautus Cicero and Horace as well as Lucretius pronounces him to be 'omnium poetarum Latinorum qui hodie exstant et qui ad nostram aetatem pervenerunt elegantissimus et purissimus idemque gravissimus atque ornatissimus'; and in another place he tells Charles IX that the style of Cicero or Caesar is not purer than this poet's: the latter is never weary of extolling his 'sermonis castitas', his 'lactea ubertas' and the like. And in truth whoever has been once imbued with the Latin of Plautus Terence Cicero Caesar and Lucretius, cannot but feel what painful inroads Greek and often debased Alexandrine Greek had made into the language even of the Augustan writers, and what irreparable mischief it had occasioned in the times of Quintilian and Tacitus to thought as well as to idiom. It is in the style and structure of his language that this purity is observable: in single words he has by no means obeyed the emphatic adjuration of his great contemporary to shun like a rock a new and unusual term; but has taken a poet's privilege, most valuable in his case, to coin hundreds of new words which have been pointed out where they occur and to introduce not a few from the Greek. And here will be the place to make some remarks on the poet's own complaint of the poverty of his native tongue. We may first assert as an indisputable fact that in his day the living Latin for all the higher forms of composition both prose and verse was a far nobler language than the living

Greek. Let not what is said be misunderstood. During the long period of Grecian preeminence and literary glory, from Homer to Demosthenes, all the manifold forms of poetry and prose which were invented one after the other, were brought to such an exquisite perfection, that their beauty of form and grace of language were never afterwards rivalled by Latins or any other people. But hardly had Demosthenes and Aristotle ceased to live, when that Attic which had been gradually formed into such a noble instrument of thought in the hands of Aristophanes Euripides Plato and the orators and had come to supersede for general use all the other dialects, became at the same time the language of the civilised world and was stricken with a mortal decay. It seems to have been too subtle and delicate for any but its wonderful creators. Nay the style and rhythm even of Menander who was born in Athens years before the date just given shew a sad falling off, if he be compared with Aristophanes. The Alexandrine poets who imitated earlier styles, and even the graceful Theocritus repeat parrot-like forms which they do not understand, because their meaning had been lost for centuries. If what is said of a Menander and Theocritus be thought presumptuous, there is no question that it is true of prose writers. Epicurus who was born in the same year as the former writes a harsh jargon that does not deserve to be called a style; and others, of whose writings anything is left entire or in fragments, historians and philosophers alike, Polybius Chrysippus Philodemus, are little if at all better. When Cicero deigns to translate any of their sentences, see what grace and life he instils into their clumsily expressed thoughts! how satisfying to the ear and taste are the periods of Livy when he is putting into Latin the heavy and uncouth clauses of Polybius! This may explain what Cicero means, when at one time he gives to Greek the preference over Latin, at another to Latin over Greek: in reading Sophocles or Plato he would acknowledge their unrivalled excellence: in translating Panaetius or Philodemus he would feel his own immeasurable superiority.

In three places Lucretius complains of the poverty of his native tongue: I 136 he says in general terms that he is aware how difficult it is to express in Latin verses the abstruse discoveries of the Greeks. But could a Greek poet express them in Greek verses? could a Homer or even an Euripides expound the theories of Aristotle or Chrysippus or Epicurus more clearly than Lucretius? Surely not: in the second book he has translated some anapaests of Euripides that consummate master of matured Attic, and there is no thought in them which he cannot express literally. Certainly in difficult questions Empedocles is more helpless than Lucretius, though he had an epic diction to imitate which had existed for centuries. The second passage is I 830 foll. where he observes that the poverty of his native speech does not permit him to

express in Latin Anaxagoras' homoeomeria, but the meaning he can expound easily enough. And easily and lucidly enough he does explain it: the less he or any other poet Latin or Greek or English has to do with the word itself the better: it is not more poetical than entelechia or homoeusia or the τὸ τί ἦν εἶναι itself. The third passage is III 218 foll. where he says that he would fain explain at greater length the way in which the different substances which compose the soul are mixed and work together, but the poverty of his native speech compels him to be brief. Whether he is brief or not, he explains an intricate question as clearly as any Greek writer in prose or verse would be likely to do. One might more justly object to Lucretius that he has too much instead of too little technical language for a poet. Whatever Greek writer Cicero wishes to explain, he can find adequate Latin terms to express the Greek, even if they are those of Plato or Aristotle: is it a new sense given to a word in common use? he can always meet λόγος or εἶδος with *ratio* or *species*: is it a newly coined word? his *qualitas* is quite as good as Plato's ποιότης. Nay from the force of circumstances *species qualitas quantitas* have had a much longer life and a far more extended application than εἶδος ποιότης and ποσότης. Had Cicero chosen to apply the prolific energy of his intellect to the task, he might have invented and wedded to beautiful language as copious a terminology as was afterwards devised by the united efforts of Tertullian and the other fathers, Aquinas and the other schoolmen; from which the most cultivated modern languages derive the chief portion of that wealth in scientific terms which enables them to claim in that respect a superiority over Latin. But the language of Latin poetry would assuredly not have been improved thereby. Ulphilas no doubt found his Gothic, Alfred his English, when those idioms were in their prime, quite as poor in their scientific terminology compared with the degenerate Latin of their times, as Lucretius found his Latin compared with Greek. That however he, like Cicero, sometimes entertained a more favourable opinion of his language and his art would appear from such expressions as the twice recurring *quod obscura de re tam lucida pango Carmina, musaeo contingens cuncta lepore.*

The Lucretian hexameter occupies an important place in the history of Latin poetry, coming as it does between that of Ennius who invented and that of Virgil who brought this metre to perfection. What Ennius did in this matter is a curious study: he not only was the first to introduce this new and strange form of verse into the language on which it was to continue to exercise so great an influence ever after; but he laid down for it laws of prosody differing in many essential points from those observed by himself in his tragedies as well as by all the other tragic and comic poets of his own and the following age. These laws, trans-

mitted from one generation to another, taught as a necessary part of a liberal education and enforced on the writers of elegiac and lyrical as well as of heroic verse, had no doubt a large share in fixing for many centuries the outward form and inner nature of the language, the tendency of which, as of its cognate dialects Oscan Umbrian and the like, was towards rapid change; though perhaps in the end they caused it to come down with a heavier crash, when at last the gulph between it and the debased and degraded speech of the people became too immense. The history of Attic and vulgar Greek is very similar. Complete however as Ennius' system of quantity was, quite as complete as that of Virgil, his rhythm from the nature of the case was somewhat rude and uncouth: he attempted to imitate the Greek structure of verse in points where there appeared to be a natural incompatibility between it and the Latin. There is not evidence to shew by what steps this rhythm was gradually improved, until at length in the hands of Virgil it attained that elaborate and complicated yet exquisite perfection, which is utterly different from the Homeric movement, and yet appears as well adapted to the Latin forms of speech as the other is to the Ionic. We have however sufficient proof that Lucretius gave to the form of his verse as well as to his language an antique colouring, as if he wished in this respect too to break with his contemporaries and approach to the manner of Ennius. He is however a far more finished master of versification than Ennius, and his most striking violations of the laws of construction habitually observed by his contemporaries or immediate predecessors often produce very fine and harmonious effects. That he is more archaic in these respects than his age may be proved not only by a comparison between him and Catullus, but by taking note of the laws of metre observed by Cicero in his youthful hexameters, which he must therefore have learnt from his teachers. Let us examine briefly some of the leading differences between the verse of Lucretius and that of Virgil and certain other authors. In the Latin and Greek hexameter alike the rhythm mainly depends on the caesura. The due observance of this caesura together with a manifold variety in the flow of the verse forms the great charm both of the Greek and the Latin heroic; and examples of its violation are exceedingly rare in Homer Lucretius and Virgil alike. But other rules observed with equal care by Virgil and Catullus are repeatedly and intentionally neglected by Lucretius. Thus we find in him hundreds of instances in which the first two feet are marked off from the rest of the verse in the following unusual modes taken at random from his six books: with two dactyls at the beginning *Religionibus atque minis, Omnia denique sancta, Suscipiendaque curarit, Quippe patentia cum, Vertice Palladis ad templum:* with a spondee and dactyl *Ergo vivida vis, At primordia gignundis, Praetermitteret humanis, Aut ex-*

trinsecus ut: more rarely a dactyl and spondee or two spondees, but then a monosyllable must follow, *Sive voluptas est, Non temere ulla vi; Inmortali sunt, Nam cum multo sunt, Vis est, quarum nos:* once indeed with great boldness, but with singularly happy effect, III 527 *Et membratim vitalem deperdere sensum.* Instances of such rhythms in Virgil may be counted on the fingers: he has *Scilicet omnibus est labor inpendendus, Armentarius Afer, Sed tu desine velle, Spargens umida mella,* probably all in imitation of Lucretius; and *Per conubia nostra* after Catullus' *Sed conubia laeta,* with him too a mere exceptional rhythm for a peculiar effect. In Cicero's early work the Aratea similar instances are found *Verum tempora sunt, Inclinatior atque;* but they are rarer than in Lucretius: in the 80 or 90 verses still remaining of his poem de consulatu suo written about five years before the death of our poet there is not a single example. In the middle of the verse too Lucretius has many favourite movements, most of which are not unexampled in Virgil Catullus or Cicero but are much less common, such as *Quid nequeat finita potestas, Detulit ex Helicone perenni, Amnibus inveniuntur aperto, Finita variare figurarum ratione, Omne genus perfusa coloribus, Pocula crebra unguenta,* and a hundred such. Cicero has some pretty verses in his prognostica which suggest the manner of Lucretius *Vos quoque signa videtis, aquai dulcis alumnae, Cum clamore paratis inanis fundere voces, Absurdoque sono fontis et stagna cietis...vocibus instat, Vocibus instat et adsiduas iacit ore querellas:* the latter passage Lucretius v 298 has manifestly imitated. In the fifth and sixth feet of the verse too so important for the rhythm the manner of Lucretius is much more like that of Ennius and, in some points, of the Greeks, than that of Virgil or Catullus or even Cicero: he delights to close the verse with such words as *principiorum materiai simplicitate,* or *vis animai, saecla animantum, mente animoque,* and does not even avoid such harsh elisions as *quandoquidem extat, perpetuo aevo, praeterea usquam.* Now in Virgil such endings as *quadrupedantum ancipitemque,* and in Catullus such a one as *egredientem* are exceedingly uncommon. But these poets make one striking exception in favour of Greek words and delight to close a verse with *hymenaeus Deiopea Thersilochumque* and the like: a concession to Greek rhythm and a prettiness which Lucretius would not care for. As for the other rhythms just mentioned, Virgil says *magnam cui mentem animumque* and *simul hoc animo hauri* in acknowledgment doubtless of his obligations to Lucretius: they produce a striking effect in the Æneid from their extreme rarity. Lucretius again does not decline spondaic endings as *naturai, aeternumque, et mortalis, sint in motu;* once even *inventi sint;* but these are much rarer than such endings as *principiorum,* and it is worthy of note that he abstains from them altogether in the sixth book. On the contrary Catullus and Virgil use

them much more frequently than *quadrupedantum egredientem* and the like: Catullus luxuriates in movements like these *Nereides admirantes, ac moenia Larisaea, fluctus salis alludebant,* and Virgil and Ovid both affect such terminations to a line as *Iovis incrementum, Phrygia agmina circumspexit;* but more in Greek than in Latin words. This however is no concession to ancient practice, but a mere modern prettiness introduced by the school of Alexandrine imitators mentioned above: see Cicero ad Att. VII 2 1 *ita belle nobis* Flavit ab Epiro lenissimus onchesmites. *hunc σπονδειάζοντα si cui voles τῶν νεωτέρων pro tuo vendita.* Was it scorn of such affectation that made Lucretius altogether avoid such σπονδειάζοντες in his last book? Other forms of spondaic endings, borrowed from the Greek and mostly applied to Greek words, are common in Catullus Virgil and Ovid. They need not be mentioned here, as they generally carry with them an air of affectation, quite alien to the nature of Lucretius. He never puts more than two spondees together at the end of the line, while the other three do not reject such rhythms as *Nereidum matri et Neptuno Aegaeo* after the manner of the Greeks. Lucretius does not avoid sometimes very harsh and prosaic endings such as *constare: id ita esse.* When Virgil has such terminations of a verse as *procumbit humi bos,* it is done for effect; Lucretius employs them sometimes for a purpose, oftener without any. He is especially fond of elisions after the fourth foot like these, *perdelirum esse videtur, permutato ordine solo, minus oblato acriter ictu, nisi concilio ante coacto:* in elisions generally he is sometimes less, sometimes more violent than Virgil. One other point is worth noticing: Lucretius loves to have the fourth foot wholly contained in one word and ending with that word: in the first 43 verses of his poem, a highly elaborated passage, more than half the number have movements like these, *quae terras frugiferentis,* not *terras quae; exortum lumina solis, tibi suavis daedala tellus,* not *suavis tibi; tibi rident aequora ponti, diffuso lumine caelum, genitabilis aura favoni* and so on. This produces a grand and stately, but somewhat monotonous effect. Catullus however carries it as far or even farther than Lucretius. Virgil, though he often uses this flow and with much effect, avoids it as a rule: he says *Troiae qui primus,* not *qui Troiae; labentem caelo quae ducitis annum,* not *quae caelo,* as Lucretius would have done. It must not be questioned that in the construction of single verses and still more in the rhythmical movement which he impresses on a whole passage Lucretius is a far less careful and skilled artist than Virgil. The effect which his grandest passages produce is owing more to the vigour and originality of the thought and the force and freshness of the expression than to studied polish and elaboration. Yet for all that he is perhaps as a writer of Latin heroic verse to be placed next to Virgil: Catullus in his hexameters

does not shew on the whole more skill and finished workmanship, and his rhythm has a far less majestical march. Ovid in his hexameter poem with all his ease and fluency does not make any advance upon, but rather falls behind Virgil: his heroic wants body and flavour, variety even. How inferior is he to Lucretius in those passages, in which he seems to be competing with him! As for the slavish pack of imitators who followed in the track of Virgil or Ovid, it were a shame even to discuss their claims to superiority.

One of the most marked peculiarities of the old Latin writers is their extreme fondness for alliteration, assonance, repetition of the same or similar words syllables and sounds, often brought together and combined in the most complex fashion. In Latin, as in some other languages, this usage was clearly transmitted from most ancient times, and is not the invention of any one writer. Ennius and the serious writers use it to produce a poetical effect; Plautus and the comic poets employ it for comic purposes: the following from the captivi, *Quanta pernis pestis veniet, quanta labes larido, Quanta sumini apsumedo, quanta callo calamitas, Quanta laniis lassitudo, quanta porcinariis*, will furnish a good example. Cicero does not despise such artifices even in prose; but none scatters them about more prodigally than Lucretius both singly and in manifold combination: they are to be counted in his poem by hundreds, nay thousands, and many are noted in different parts of our commentary. His alliterations comprise almost every letter of the alphabet: the more effective letters such as *m p v* pronounced *w* are often used with striking effect. The last sometimes expresses pity as its sound well fits it to do: *Viva videns vivo sepeliri viscera busto:* comp. Virgil's *Neu patriae validas in viscera vertite vires;* and Cicero's *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus:* or force or violence, because the words indicating such effects begin many of them with the letter: *vivida vis pervicit, venti vis verberat, ventorum validis viribus, Vel violenta viri vis, quid volnera vellent:* comp. Virgil's *Fit via vi,* Livy's *vi viam faciunt,* Ennius' *vidi Priamo vi vitam evitari;* for effects of living shunning and the like are expressed by it in Lucretius also. Often various letters are used in combination: the following is a good instance of *m p* and *v: parare Non potuit, pedibus qui pontum per vada possent Transire et magnos manibus divellere montis Multaque vivendo vitalia vincere saecla:* comp. Ennius' *Marsa manus, Paeligna cohors, Vestina virum vis.* Such combinations are common in Virgil; but occur by hundreds in Lucretius. Then he delights in bringing together words compounded of the same preposition by themselves or in union with other sorts of alliteration or assonance: *officium...officere atque obstare, seiungi seque gregari, disturbans dissoluensque, retroque repulsa reverti, condenso conciliatu, Exos et exanguis, pertusum congesta quasi in vas Commoda perfluxere atque*

ingrata interiere: comp. Virgil's *Insontem infando indicio* and the like. Then he loves to bring together the same or like-sounding words or examples of oxymoron in conjunction with other alliterations and assonances or by themselves: *omnes omnia, omnibus omnino;* again and again *Multa modis multis multarum rerum; pueri circum puerum; Nil sint ad summam summai totius omnem, Tactus enim tactus; aurea dicta, Aurea; sonitu sonanti, penitus penetrare, funditus fundamenti; casta inceste, Innumerabilem enim numerum, Innumero numero, Immortalia mortali* cet. cet. Virgil's fondness for similar artifices is probably in great measure derived from Lucretius. After Virgil's time they appear to be less frequent in Latin literature: people probably got tired of them, as has happened in other literatures. This love of assonance in all its shapes our poet indulges to such an extent, that his ear and taste appear not unfrequently to have become blunted by satiety: often within the compass of two or three lines he will use some of his favourite words, such as *res ratio* or *corpora,* three or four or five times, without there being any point or force whatever in their repetition. The most glaring examples are pointed out in their places. Many other modes of producing effect might be noted in Lucretius, such as his habit of putting together substantives without any copula: *Prata lacus rivos segetes; Ossa cruor venae calor umor viscera nervi:* but let the examples given suffice. In his alliterations and assonances as well as in the rhythmical movements of his verse and the style and colour generally which he imparts to his poem Lucretius seeks rather for the most direct and obvious means of producing effect, than for the more subtle and recondite arts of Virgil. His ornament therefore is apt sometimes to be in excess, sometimes to be deficient; yet even the plainest and most prosaic parts of his poem shew a sincerity of thought, a force of reasoning and a racy idiomatic flavour of style which render them less dull and uninteresting than the flatter portions of many more carefully elaborated works.

Standing as Lucretius did entirely aloof from what would most excite the sympathies of his contemporaries, there is not much evidence to shew what reception his poem met with from the great mass of his countrymen. It sufficiently appears however that he and Catullus were justly esteemed the two greatest poets of their age. Yet there can be no doubt that his work came into the world at a time very unfavourable for the fame of its author. He would take no part in the great movement then in active progress which ended in producing the works of Virgil Horace and Ovid and fixed once and for ever the Roman standard of poetical taste. The splendour of their reputation threw into the shade that of their greatest predecessors, Ennius Lucretius Catullus: they obtained the unanimous suffrages of the best critics of the empire, at the head of whom stood Quintilian. The reaction in favour of the

older literature seems to have been headed by unskilful and too zealous leaders and thus to have exposed itself to the shafts of satire. The effect which Dryden and Pope produced for some generations on English poetry gives but a faint notion of the sovereignty exercised by the Augustan poets. And yet Lucretius had no slight influence on the poetry of succeeding ages, although the first mention of his verses according to the interpretation usually given is anything but complimentary. I allude of course to a sentence of Cicero written a few months after the poet's death and probably at the very time when his poem was first published. At the end of a short letter to his brother Quintus, II 11, written early in 700, occurs this sentence as it is given in all mss. *Lucretii poemata ut scribis ita sunt multis luminibus ingenii multae tamen artis.* Nearly all editors are now agreed in writing *ita sunt, non multis* cet.; but sense alone must determine the right reading: to put *non* before *multae tamen artis* is quite as easy an emendation. What then is Cicero's meaning? we have not the criticism of Quintus which called forth the remark to enlighten us. At this period when the νεώτεροι, as Cicero calls them, were striving to bring the Alexandrine style into fashion, there seems to have been almost a formal antithesis between the rude genius of Ennius and the modern art. It is not then impossible that Quintus may so have expressed himself on this head, that Cicero may mean to answer 'yes you are quite right in saying that Lucretius has not only much of the native genius of Ennius, but also much of that art which to judge by most of the poets of the day might seem incompatible with it.' Thus the mss. would be right and Cicero's judgment would satisfy us. Again to write either *multae tamen etiam artis* or *multae etiam artis* is hardly, if at all a greater change than to insert *non*. Lachmann however has no doubt that *non* must come before *multis*: he says Cicero could not deny to Lucretius art: 'quod in Marco sane mirandum esset, quippe qui eius artis qua Lucretius pollet ne minimam quidem partem in carminibus suis adsecutus esset. contra idem cur pauca *ingenii lumina* in Lucretii carmine animadverterit, non potest obscurum esse: nam ei Ennius et Attius ea re *ingeniosi* videbantur, quod oblectando docerent et animis movendis corrigerent mores.' But every one feels that *ingenii lumina* means here precisely what we mean by genius; what Ovid means when he says of Ennius *Ennius ingenio maximus, arte rudis*, of Callimachus *Quamvis ingenio non valet, arte valet*, of himself broken by calamity *Nec tamen ingenium nobis respondet, ut ante ... Impetus ille sacer qui vatum pectora nutrit, Qui prius in nobis esse solebat, abest;* what Horace means by *ingeni benigna vena;* what Juvenal means when he says of Demosthenes and Cicero *utrumque Largus et exundans leto dedit ingenii fons*. As it would not be well then in Cicero to deny Lucretius *ingenium*, if we must have a *non*, I should prefer to see it before *multae.*

Why Cicero should deny him art, may be explained in more ways than one: he had a genuine love of Ennius and is indignant that the 'cantores Euphorionis' should presume to despise him: he and Lucretius agreed on taking him for their great poetical model. At the same time his own Aratea must have been written thirty years or more before this letter, and he may well have been so far converted by the almost unanimous tendency of the poets of the day towards that style of diction and verse which was gradually leading up to the works of Virgil and Horace, as to deny Ennius and Lucretius much art. What remains of their poetry, proves that both Augustus and Maecenas had formed their style rather in the school of Catullus and Calvus than of Virgil and Horace; yet doubtless they would have rated the art of the latter more highly than that of the former. Or Quintus may have dwelt on Lucretius' philosophical qualities; and Cicero who is continually jeering at Epicurus for his want of art and scientific discipline, may possibly include Lucretius in the same condemnation. However that may be, if Cicero did deny him *ingenium*, then did the great Roman orator display less taste than the orator and philosopher of Arles Favorinus two centuries later when, as Gellius I 21 records, he spoke of Lucretius as *poetae ingenio et facundia praecellentis*.

Catullus, though the poem was published so short a time before his death, must have known it, as he has imitated it in more than one place. When it was given to the world, Virgil was fifteen years of age. At such an age therefore the style and manner of Lucretius were able to impress themselves fully on the younger poet's susceptible mind; and perhaps the highest eulogy which has ever been passed on the former is that constant imitation of his language and thought which pervades Virgil's works from one end to the other. Horace too and Ovid had carefully studied him: this commentary will in some degree shew what they as well as Manilius owe to him, though this last disciple is not worth much. Lucretius thus exercised indirectly no slight influence on the whole future career of Latin poetry. To pass to modern times, the Italian scholars of the fifteenth century, full of enthusiasm for everything classical, yet admired no Latin poet more than Lucretius, Virgil alone excepted. The illustrious French scholars of the sixteenth century, Lambinus Turnebus Scaliger, pronounced him one of the greatest, if not the greatest of Roman poets. In more recent times he has been less praised and read. The critics of Germany have in general shewn little sympathy for him: full of their heraclitean fire they will not tolerate anything epicurean. Goethe alone is a brilliant exception: his sympathy and admiration for Lucretius never failed. In this country the most recent account of the philosophy and poetry of Lucretius is at the same time the fullest and most favourable and by far the best:

I speak of that given by Professor Sellar in the Roman poets of the republic.

BOOK I

1—43: the poet calls upon Venus, as mother of the Romans, author of their being to all living creatures and sole mistress of the nature of things, to help him in writing on that theme; but first to constrain her lover Mars the lord of war to grant peace to the Romans in order that he himself might have ease of mind to write, and his friend Memmius leisure to read what he wrote.

1 *Aen. genetrix:* her peculiar relation to the children of Aeneas is placed in vivid contrast with that which she bears to the whole of animate and inanimate nature. Lucr. may have had in his mind Ennius ann. 53 *Venus et genetrix patris nostri.* Ovid without doubt alludes to Lucr. both in trist. II 261 *Sumpserit, Aeneadum genetrix ubi prima: requiret, Aeneadum genetrix unde sit alma Venus,* and fasti IV 90 foll. where the whole of our passage is brought under contribution. *genetrix* AB rightly: so all the best mss. of Virgil and others, and certainly most inscriptions of the best ages: some of those which have *genitrix* are now declared spurious; some I doubt not have been wrongly copied. Lamb. compares *meretrix meritus* with *genetrix genitus*: Lach. adds *genetivus* and *obstetrix institor,* and attributes the *e* to the following long *i.* It may be said that *meretrix* is from a verb of the 2nd conj. and that *mereto* is repeatedly found in old inscriptions; that *meritus* therefore, not *meretrix,* has changed its vowel; that *obstetrix* too is intermediate between *stator* and *institor:* comp. *recĕpit accĕdere* and the like. This is true; but authority calls imperiously for *genetrix,* and *genetus genetor* may once have been in use: see the index of the new corpus inscr. Lat. vol. I for numerous cases of *e* for *i* in the old language. 2 *Alma,* an epithet he applies elsewhere to water, the earth, a nurse, pleasure, Pallas; but here it has manifestly a peculiar force with reference to all that follows in this fine address in which no word is thrown away. *alma Venus* was not only familiar to poets, but seems to have passed into the language of the people. I find on the basis Capitolina reg. XII an *almae Veneris vicus;* and the cosmographia Aethici p. 716 ed. A. Gronovius says of the island between Portus and Ostia *ita autem vernali tempore rosa vel ceteris floribus adimpletur ut prae nimietate sui odoris et floris insula ipsa libanus almae Veneris nuncupetur.* Macrob. sat. III 8 *Laevinus etiam sic ait* Venerem igitur

almum adorans, sive femina sive mas est, ita uti alma Noctiluca est. Plautus rudens 694 has *Venus alma*; Appul. metam. IV 30 the goddess in wrath says of herself *En rerum naturae prisca parens, en elementorum origo initialis, en orbis totius alma Venus.* Empedocles termed her ζείδωρος: see Plutarch amat. p. 756 E.

2 3 and 6—9: thus early the poet calls attention to the three great divisions of the world, to which he as well as other writers before and after him so constantly revert that the thing passed into a common proverb: *mare terra caelum di vostram fidem*, says Plaut. trin. 1070; *ut nulla pars caelo mari terra, ut poetice loquar, praetermissa sit*, says Cic. de fin. V 9. Ovid fasti IV 93 thus imitates Lucr. *Iuraque dat caelo terrae natalibus undis Perque suos initus continet omne genus.* But Bentl. points out that Lucr. has himself imitated Eurip. Hipp. 449 φοιτᾷ δ' ἀν' αἰθέρ' ἔστι δ' ἐν θαλασσίῳ κλύδωνι Κύπρις, πάντα δ' ἐκ ταύτης ἔφυ, and 1261 Ποτᾶται δ' ἐπὶ γαῖαν εὐάχητόν θ' Ἁλμυρὸν ἐπὶ πόντον. Θέλγει δ' Ἔρως, ᾧ μαινομένᾳ κραδίᾳ πτανὸς ἐφορμάσῃ Χρυσοφάης, φύσιν ὀρεσκόων σκυλάκων Πελαγίων θ' ὅσα τε γᾶ τρέφει, Τὰν ἅλιος αἰθομέναν δέρκεται, Ἄνδρας τε· συμπάντων δὲ Βασιληΐδα τιμάν, Κύπρι, Τῶνδε μόνα κρατύνεις: the last clause is parallel with 21 *Quae quoniam* etc. But both Eurip. and Lucr. seem indebted to the Homeric hymn IV 1 Ἀφροδίτης Κύπριδος ἥτε θεοῖσιν ἐπὶ γλυκὺν ἵμερον ὦρσε Καί τ' ἐδαμάσσατο φῦλα καταθνητῶν ἀνθρώπων Οἰωνούς τε διιπετέας καὶ θηρία πάντα Ἠμὲν ὅσ' ἤπειρος πολλὰ τρέφει ἠδ' ὅσα πόντος: the orphic hymn LV 4 follows in the same track, Πάντα γὰρ ἐκ σέθεν ἐστίν, ὑπεζεύξω δέ τε κόσμον καὶ κρατέεις τρισσῶν μοιρῶν, γεννᾷς δὲ τὰ πάντα Ὅσσα τ' ἐν οὐρανῷ ἐστὶ καὶ ἐν γαίῃ πολυκάρπῳ Ἔν πόντου τε βυθῷ. 2 *caeli lab. signa*: Aen. III 515 *Sidera...tacito labentia caelo. labentia* well describes the smooth easy motion 'ohne Hast doch ohne Rast': so IV 444 *signa videntur Labier adversum nimbos.* Cic. Arat. fragm. 3 said before Lucr. *Cetera labuntur celeri caelestia motu.* Lucr. had attentively studied this translation, as we have said above and shall often have occasion to repeat. 3 *terras*: Lucr. when speaking of the earth as an extended surface or a solid mass uses the plur. of the accus. and abl. oftener than the sing., the gen. not unfrequently, the nomin. and dat. only once each I think, II 1109 and V 630. *frugiferentis* appears to be a ἅπαξ λεγόμενον. 4 *Concelebras* rightly explained by Wak. 'uno tempore frequentas, permeas': its first meaning seems to be that of a multitude filling, crowding a place, as II 344 *variae volucres laetantia quae loca aquarum Concelebrant...Et quae pervolgant nemora avia pervolitantes*, where *Concelebrant* and *pervolgant* might clearly change places: comp. also Cic. de imp. Cn. Pomp. 61 *At eam quoque rem populus Romanus non modo vidit, sed omnium etiam studio visendam et concelebrandam putavit*: the goddess therefore fills at once with her presence, *pervolgat*, earth and sea, and thus per-

forms the part of a multitude: this sense is therefore more poetical than and also implies that of peopling. 5 *lumina solis*: in the nom. and acc. the plur. is much oftener used than the sing. by Lucr. to express the φάος ἠελίοιο. 6 *te...Adventumque tuum*: comp. 12 *te...tuumque initum*: this form of expression is singularly stately. 7 *daedala* well explained in Paulus exc. ex Festo p. 68 (52): *daedalam a varietate rerum artificiorumque dictam esse apud Lucretium terram, apud Ennium Minervam, apud Virgilium Circen, facile est intelligere, cum Graece δαιδάλλειν significet variare.* Lucr. applies it also to nature and to the tongue, followed by a gen.; and in a pass. sense to poems and to statues. 8 *summittit* a favourite word of Lucr. in this signification. *rident* here, as II 559 *ridet placidi pellacia ponti* and V 1005 *ridentibus undis*, has simply the sense of *nitet diffuso lumine* in 9, and *rident* in III 22: there seems to be no allusion to that plashing ringing ripple so often seen on Greek and Italian seas in spring which Aeschylus expresses by γέλασμα, and Aristot. probl. XXIII 1 and 24 by ἐπιγελᾶν: that is rather the *cachinni* and *cachinnat* of Catullus and Attius. 9 *Placatumque*: VI 48 *Ventorum ex ira ut placentur*; so Virg. *tumida aequora placat* and *placataque venti Dant maria*, the opposite of Horace's *iratum mare.*

10 *Nam* etc. a poet's logic: he assumes the sunshine and the spring to follow on the advent of Venus, because when they do come, all living things turn to thoughts of love: *It ver et Venus et veris praenuntius ante Pennatus graditur zephyrus.* *species verna diei* i. e. *species dies*: comp. 119 *Per gentis Italas hominum*, and n. there; and IV 733 *Cerbereasque canum facies*: it means that aspect of day which belongs to spring. 11 *reserata*: the *sera* being removed from the door of its prison. Ovid fasti II 453 *et sex reserata diebus Carceris Aeolii ianua laxa patet.* *genitabilis* used this once by Lucr. and with the active sense in which *genitalis* is so often employed by him. Varro de ling. Lat. V 17 *Aetheris et terrae genitabile quaerere tempus*, which is rightly given to Lucilius though the mss. assign it to Lucr.: the word is also used actively by Avienus and Arnobius. VI 805 *mactabilis* is *qui mactat*; so Virg. *penetrabile telum* and *frigus*; Ovid *penetrabile telum* and *fulmen*=quod penetrat, in which sense Lucr. more than once has *penetralis*; in Horace *dissociabilis*=qui dissociat, in Plaut. *impetrabilis* =qui impetrat, in Plaut. and Tacitus *exitiabilis*=*exitialis*; in Terence *placabilius est* twice = aptius ad placandum, in Persius *reparabilis* = qui reparat, in Ovid *resonabilis* = qui resonat: comp. in Horace *illacrimabilem Plutona* with *illacrimabiles urgentur.* *terribilis* = qui terret, *horribilis* = qui horretur. With *gen. aura fav.* comp. Catul. LXIV 282 *aura tepidi fecunda favoni*, and Pliny nat. hist. XVI 93 *Hic est genitalis spiritus mundi a fovendo dictus, ut quidam existimavere.* 12 *primum*: Virg. geor. II 328 and Ov. fasti IV 99 and Chaucer at beg. of Canterbury tales

make the birds first feel the coming of spring: 'So priketh hem nature in hir corages'. 13 *perculsas* is literally 'knocked down, struck to the ground': see Forcellinus and Bentl. to Hor. epod. XI 2: hence often 'stunned, smitten through all the frame' by a strong passion, as here by love, 261 by a strong natural craving: comp. Plaut. trin. 242 *Nam qui amat, quod amat, quom extemplo eius saviis perculsus est*, where *perculsus* is restored from the Ambrosian, the other mss. having *percussus*, with which it is so often confused.

14 *ferae pecudes* for *ferae* seems very doubtful: *pecudes* to be sure is often used by the poets for animals generally, by Lucr. and others for shoals of fish; yet I find in no classical writer *ferae pecudes* for *ferae*; but again and again in Lucr. and others *pecudes* and *ferae* in formal contrast. Wak. misquotes Martial, and besides him only quotes or misquotes mere barbarians in language Hilary and Tertullian to support *ferae pec.* Forbiger refers to Varro de re rust. II 1 5 and Colum. IX 1, passages which make strongly against him: by *pecudes ferae* Varro means tame animals or *pecudes* found in a wild state, viz. sheep goats swine bulls asses horses; Columella goats deer boars, which though wild may yet be kept in herds on an estate. Again *ferae* is awkward, as tame beasts are as much moved as wild. Ovid fasti IV, where he is imitating Lucr. speaks of tame brutes only; Virg. geor. III 242 foll. of both tame and wild, and it is of mares he says *flumina tranant.* Can *ferae pec.* mean brutes made headstrong by passion? comp. Cat. LXI 56 *Tu fero iuveni in manus Floridam ipse puellulam Dedis*: otherwise [illegible]ems highly prob. 'generally', 'without exception': so II 370 *Ad sua quisque fere decurrunt ubera lactis*; and 218 *incerto tempore ferme* 'at quite an uncertain time', and III 65 *Turpis enim ferme contemptus* 'without exception'; V 242 *Haec eadem ferme mortalia cernimus esse.* Comp. Virg. Aen. III 135 *Iamque fere sicco subductae litore puppes*, where I do not understand the doubts of editors. *per pab. laeta*: here again, as throughout this address, the epithet is at once poetical and idiomatic: *pab. laet.* occurs 6 or 7 times with *armenta*, *arbusta*, *vineta*: thus Virg. *laetas segetes* and the like. But it was also a word of the people: see Cato and Varro in Forcell. and comp. Cic. de orat. III 155 *laetas segetes etiam rustici dicunt*; and orator 81 where he says the same. Manil. III 654 imitates Lucr. *Tunc pecudum volucrumque genus per pabula laeta In Venerem partumque ruunt.*

15 *ita capta*...*Te sequitur*...*quo quamque ind. per.* = *ita quaeque capta* ...*Te s. quo*: such constructions are not uncommon in Lucr. 170 *Inde enascitur atque oras in luminis exit Materies ubi inest cuiusque* = quicque enasc....inde ubi eius mat. inest: Ov. ars am. III 135 *quod quamque decebit Eligat* is regular: see Mayor Cic. phil. II 119. Not unlike is V 1110 *divisere atque dedere Pro facie cuiusque* = cuique pro facie eius: like in

principle are i 152 *Quod multa in terris fieri caeloque tuentur Quorum operum causas nulla ratione videre Possunt*; 695 *Unde hic cognitus est ipsi quem nominat ignem*; iii 133 *et in illam Transtulerunt, proprio quae tum res nomine egebat*; vi 313 *ex illa quae tum res excipit ictum*: with these comp. Hor. sat. i 4 2 *Atque alii quorum comoedia prisca virorum est*; 10 16 *Illi, scripta quibus comoedia prisca viris est*: again iv 560 *neque illam Internoscere verborum sententia quae sit*; ii 1143 *Iure igitur pereunt, cum rarefacta fluendo Sunt et cum externis succumbunt omnia plagis* = omnia pereunt cum etc. iii 836 *In dubioque fuere utrorum ad regna cadendum Omnibus humanis esset* = In d. fuere humani utrorum etc. v 853 *habere* cet. = habere utrumque Mutua qui cet. vi 266 *Nec tanto possent venientes opprimere imbri...Si non extructis foret alte nubibus aether*: i. e. venientes [nubes] cet.: 503 *Concipiunt* [i. e. nubila] ...*Cum supera magnum mare venti nubila portant.* iii 620 *ita multimodis partitis artubus esse, Membrorum ut numquam existat praeposterus ordo* also I think = esse membra, ut etc. ii 91 *neque habere ubi corpora prima Consistant* = habere corpora ubi: quite similar is Ov. trist. iii 5 53, causelessly tampered with by editors, *Spes igitur superest facturum ut molliat ipse...poenam* = facturum ipsum ut molliat. iv 387 *Qua vehimur navi fertur* is more usual and like Liv. i 1 3 *ei in quem primum egressi sunt locum, Troia vocatur*: a constr. not uncommon in the best authors: comp. also iv 397 *Exstantisque procul* cet. and n. there.

17 *Denique* not in the sense it usually bears in Lucr. as a synonyme of *praeterea*, *porro* 'again' 'once more', introducing a new argument: here it places the sentence in apposition with what precedes, summing up and serving as a climax to what has been said: yes, in short, to sum up all, you inspire love throughout the world and every portion of the world. Comp. Ov. heroid. i 1 21 *Denique quisquis erat castris iugulatus Achivis*; 4 84 *Denique nostra iuvat lumina quidquid agis.* Terence is fond of this use: comp. eun. 40 *denique Nullum est iam dictum quod non sit dictum prius*; heaut. 69 *denique Nullum remittis tempus neque te respicis*, where Cicero de fin. i 3 inadvertently joins *denique* with what precedes. But in Lucr. himself i 464 *Denique Tyndaridem* cet. and 471 *Denique materies si rerum* cet. the word has much the same force, introducing merely a confirmation of what precedes. Cicero and the best writers often use it with this force in the same sentence with what it sums up, as in the clause four times repeated by Lucr. *finita potestas denique cuique Quanam sit ratione*: here *denique* does not, as it so often does, merely add an item in the enumeration, but defines more fully what precedes. The word means here much what *adeo* does in Virgil's imitation, geor. iii 242. *rapacis* is well explained by Ovid met. viii 550 *nec te committe rapacibus undis*: *Ferre trabes solidas obliquaque volvere magno Murmure saxa solent. vidi contermina ripae Cum gregi-*

bus stabula alta trahi: Virgil also applies it to rivers, Seneca to a torrent, Ennius (?) 303 to a sea-current. 18 Virg. georg. II 209 *Antiquasque domos avium.* 19 *incutiens* more usually applied to fear or some other bad passion; but 924 to love as here: comp. too Hor. epist. I 14 22 *Incutiunt urbis desiderium*; though there perhaps it is satirical. 20 *generatim* 'kind by kind': of adverbs in *-tim* or *-sim* generally with this force there are from twenty to thirty in Lucr. Bopp vergl. gram. III 243 points out that they are adverbial accusatives of lost abstract substantives: *tractim* prop. 'with drawing', *cursim* 'with running', *caesim* 'with cutting', *confertim* 'with massing together': see too Corrsen Lat. Formenl. p. 281 foll. who enumerates more than 200 of them. *saecla* found in Lucr. only in the contracted form, and used by him some forty times in this sense of races, generations of living creatures, men, wild beasts, even inanimate things, as II 1113: a sense too peculiar to him with the exception of a few imitators: he has it perhaps only once, III 1090, or at most 3 times, see I 202 and III 948, in its ordinary meaning: and those 3 cases may be looked upon as almost the same phrase. *propagent* a very expressive metaphor recurring not unfrequently.

21 *rer. nat.*: see n. to 25. 22 23 *quicquam* so A B always with nearly all the best mss. and incriptions: also *quicque* and *quicquid* in the sense of *quicque*; but *quidquid* as a relative: see Lach. to V 264. *dias*: can Lucr. by this word mean either 'bright' or 'open' according to all its analogies in Latin Greek and as we are told Sanscrit? he uses the word only twice after this, II 172 *dia voluptas* and V 1387 *pastorum ...otia dia*: in the former place the meaning 'bright' would be suitable; in the latter that of 'in the open air': comp. Varro de ling. Lat. V 66, *Hoc idem magis ostendit antiquius Iovis nomen; nam olim Diovis et Diespiter dictus, id est dies pater. a quo dei dicti qui inde, et dies et divum. unde sub divo dius Fidius*, and so on: also VII 34 he quotes from Pacuvius (?) *Caelitum camilla, expectata advenis, salve hospita*, and after explaining *camillus* and *camilla* continues '*Hinc casmilus nominatur Samothrece mysteriis* dius *quidam administer dis magnis*: then too surely the name of the mysterious *dea dia*, who had her attendant *camilli*, whether she were *Tellus, Ceres, Ops, Flora, Fauna* or *Diana*, or all or none, had some connexion with the bright open air; so also that of *Diana*. Virgil uses the word only once, XI 657 *dia Camilla*, who 543 is also *Casmilla* and consecrated to Diana. While correcting these notes, I find a passage in Max Mueller's science of language, 2nd series, p. 453, which shews that Sanscrit scholars find a similar uncertainty: 'we get the Sanskrit *deva*, originally bright, afterwards god. It is curious that this, the etymological meaning of *deva*, is passed over in the dict. of Boehtlingk and Roth. It is clearly passed over intentionally and in order to show that in all the passages where *deva* occurs in the Veda it may be translated by god or divine. That it may be so translated

would be difficult to disprove; but that there are many passages where the original meaning of bright is more appropriate, can easily be established'. *luminis oras*, a favourite phrase by which he seems to denote the line or border which divides light from darkness, being from non-being; for he almost always uses *orae* in its proper sense, that of an edge or coast or limiting line. The phrase is found twice in the annals of Ennius, and twice in Virgil. 24 *scribendis versibus* are of course datives: comp. georg. I 3 *habendo pecori* and the note on it in terminalia p. 3; see also Madvig emend. Liv. t8 IX 9 where he properly reads *vilia haec capita luendae sponsioni feramus*. 'Dativo gerundivi in consilio significando admodum libere Livius utitur, ut I 24 *me gerendo bello ducem creavere*, III 5 *his avertendis terroribus in triduum feriae indictae*, IX 26 14 *dictatorem deligere exercendis quaestionibus*, et id genus alia': comp. too IV 43 10 *non ducem scribendo exercitui esse*.

25 *de rerum natura*: this title he doubtless gave to his poem in imitation of Epicurus' great work περὶ φύσεως in 37 books, of which some miserable and ill-deciphered fragments are published in the volum. Herculanens. The same title was given by Empedocles to his chief poem in 3 books, which must in some degree have served Lucr. for a model. What he means by *rerum natura* will sufficiently appear in the course of the poem: they are two of four words, *corpus* and *ratio* being the other two, which occur with such curious frequency. Perhaps every one of the many meanings which *natura* has in Cicero or *nature* in English is found in Lucr. Sometimes it is an active force or agency, sometimes an inert mass; sometimes an abstract term; sometimes, as I 419, it seems synonymous with the *omne*. *Res* has with him many abstract meanings; but as a physical term it always signifies composite things in being in contradistinction to the *primordia* or *corpora prima* out of which things are made: I 420, 449, 504 are apparent rather than real exceptions: *natura rerum* is therefore coextensive with the *summa rerum*, comprehending the infinity of worlds in being throughout the *omne*, and denoting sometimes this *summa* itself, sometimes that universally pervading agency by which the *summa* goes on. If *natura rerum* sometimes seems like the *summa rerum* to be the same as the *omne*, it arises perhaps from Lucretius, like all other philosophers, until perhaps the age of Newton, thinking all infinitely great things and all infinitely small things to be respectively equal; the occasion as we shall see of so many paralogisms. IV 385 *naturam noscere rerum* = causas cognoscere rerum, *natura* often meaning the inner nature and essence of things. '*pangere* figere, unde plantae *pangi* dicuntur, cum in terram demittuntur; inde etiam versus *pangi* vel *figi* in cera dicuntur' Paul. ex Fest. p. 212: comp. Colum. X 251 *ceu littera...Pangitur in cera docti mucrone magistri*. 26 *Memmiadae* a hybrid word formed on the analogy of, though more regularly than *Scipiadas* which Lucr. Virgil and Horace

have all borrowed from Lucilius, unless Ennius employed it before him. 27 Od. δ 725 Παντοίῃς ἀρετῇσι κεκασμένον ἐν Δαναοῖσι.

29 *moenera*: this antique form Lucr. uses three times, as well as *moerorum* twice, and *poeniceus* and *poenibat*: see also n. to II 830 *poeniceus*. *militiai*: Lucr employs this old form of the gen. very often in the case of substantives, more rarely in that of adjectives: a dat. in *-ai* is quite unknown to him. 34 *Reicit* or *reiĕcit*, never *reiicit*; and so of the other compounds of *iacio*: these are the only spellings known in the best ages. *aet. dev. vuln. am.*: Virg. Aen. VIII 394 varies the phrase: *aeterno fatur devinctus amore*. *vulnus* and cognate metaphors are frequently applied to love in bk. IV. 35 *ter. cer. rep.* Cic. Arat. frag. VIII before him has *tereti cervice reflexum* of Draco's head: Aen. VIII 633 *tereti cervice reflexam* of the she-wolf. Ov. met. X 558 of Venus *Inque sinu iuvenis posita cervice reclinis*. *teres* is defined by Festus 'in longitudine rotundatum', and Servius more than once gives a similar explanation. Right, if a cylinder or pole be in question: so *teretes trunci* and *teres oliva* in Virgil. It is connected with *tero* and similar Greek words, and seems to denote that the thing with which it is joined is of the proper shape, neither too thick nor too thin. Thus a *teres cervix* is a neck that has the true outline of beauty, neither lean nor fleshy, neither too long nor too short. So *brachiolum teres* in Catullus, *teretes surae* and *teres puer* in Horace. Appul. florid. II 15 p. 51 says of a beautiful statue *cervix suci plena, malae uberes, genae teretes*, where the epithets are pretty nearly synonymous: comp. too IV 58 the *teretis tunicas* and V 803 *Folliculos teretis* of the cicada, i.e. coats of equal and regular thinness and fineness all over. Hence metaphorically *aures teretes* in Lucr. and Cic. *oratio teres* in Cic. *ore teres* in Persius, *teres atque rotundus* in Horace. 36 *Pascit, avidos, inhians*: the simple directness of these terms has a singular force: comp. Tasso Ger. lib. XVI 19 *E i famelici sguardi avidamente In lei pascendo*. Spenser is full of imitations, such as this *Long fed his greedy eyes with the faire sight*. *pascere oculos* is a common phrase: comp. the *vox Vitellii* in Tac. hist. III 39 and Suetonius. *inhians in*: the verb generally takes a dat. or acc. Esdras I 4 31 *The king gaped and gazed upon her with open mouth*. 37 more emphatic than the *pendet ab ore* of Virgil and Ovid: Petron. sat. 127 *ex cuius osculo pendes*.

38 *corpore sancto* seems clearly to refer both to *recubantem* and *circumfusa*. 39 *circumf.* comp. Ov. met. IV 360 *Et nunc hac iuveni, nunc circumfunditur illac*, and XIV 585 *colloque parentis Circumfusa sui*: in both which places it governs a dat. Comp. 87 the accus. *virgineos circumdata comptus* with VI 1036 the dat. *rebus circumdatus adpositusque*, which is the prose constr. as Cic. in Catil. III 2 *Tectis ac moenibus subiectos prope iam ignes circumdatosque*. Virg. Aen. VIII 406 has *Coniu-*

gis. infusus gremio of the husband in the arms of Venus. *loquellas*, also *querella*, and prob. *luella*: see Lach. to III 1015, who says the *l* is doubled after the long vowel, when a short one precedes it: so also *medella* etc.; but *suadela tutela* and the like, when a long vowel precedes the long vowel: a canon fully borne out by inscriptions and the best mss. 40 *plac. pac.*: VI 73 *placida cum pace*: *placida pace* is twice found in the Aeneid. *incluta*: Plautus Pers. 251 has *Iovi incluto.* 41 *agere hoc*: here and IV 969 *Nos agere hoc autem et naturam quaerere rerum* Lucr. alludes to the famous sacrificial formula *hoc age*, so often adopted by Latin writers: it seems to have struck Plutarch as a foreigner: he more than once explains the OK ΑΓΕ, as in Coriol. p. 225, προσέχειν τοῖς ἱεροῖς καὶ μηδὲν ἔργον ἐμβαλεῖν μεταξὺ μηδὲ χρείαν ἀσχολίας. Lucr. could not, sweet as it was to see from shore one's neighbour struggling with the sea, imitate the more than epicurean indifference of Sulla: see Sen. de clem. I 12 2 *Exterrito senatu 'hoc agamus' inquit 'P. C. seditiosi pauculi meo iussu occiduntur'.* 43 *desse* 'to fail it from cowardice': comp. Cic. in Catil. I 3 *Non deest reipublicae consilium neque auctoritas huius ordinis: nos, nos, dico aperte, consules desumus*; pro Sest. 101 *Propugnatores autem reipublicae qui esse voluerunt, si leviores sunt, desciscunt; si timidiores, desunt*; epist. ad Att. XIV 13 4 *Casurus in aliquam vituperationem, quod reipublicae defuerim tam gravi tempore*: *desse*, and 711 *derrasse* with one *e*: see Vel. Longus ap. Lach.: but III 861 *deerrarunt.*

41—43: it seems to me that Lucr. was writing these lines about 695 or four years before his death, when Caesar was consul and had formed his coalition with Pompey. Memmius was then praetor designatus, in fierce opposition to Caesar and at that time on the side of the senate with Cicero and doubtless Lucretius. There was almost a reign of terror: see Livy epit. 103 *Leges agrariae a Caesare consule cum magna contentione, invito senatu et altero consule M. Bibulo, latae sunt.* Hear what Cic. says, writing to his brother in that year, I 2 15 *Rempublicam funditus amisimus....si qui antea aut alieniores fuerant aut languidiores, nunc horum regum odio se cum bonis coniungunt....praetores habemus amicissimos et acerrimos cives, Domitium Nigidium Memmium Lentulum; bonos etiam alios, hos singulares.* It could scarcely have been later than 696, as in the spring of 697 Memmius went as propraetor to Bithynia, with Catullus in his train: see Schwab. Catull. I p. 158 foll. He certainly did not return to Rome before 698, and the year following Lucr. died.

Gaius Memmius, son of Lucius, of the Galerian tribe had, like the rest of his family, no cognomen; although he has very generally received one from the editors of Cicero having chosen to alter the correct reading of mss. in Cic. ep. ad fam. XIII 19 2 *C. Maenius Gemellus* to *C. Memmius Gem.*: see Mommsen Roem. Muenzw. p. 597. He would appear to have been a hard selfish unprincipled man to judge from history and the

character given him by Catullus in his 10th and 28th poems, which form a curious comment on the 'worth and sweet friendship' which Lucr. found in him, deceived, as men of his temperament so often are, by the specious qualities of a worldly man. But he was already dead when Memmius so flagrantly disgraced himself in the matter of the consulship, and went into exile, abandoned by Caesar to whose party he had impudently gone over. His country found that 'the general weal' could easily enough dispense with his services. His contempt for Latin letters which Cicero mentions would also seem to fit him but little for patron to so genuine a Latin poet. Did Lucr. address Memmius as a believer in Epicurus? or did he rather seek to convert him to that creed? If so, his teaching was sadly thrown away: he called on Memmius to look on Epicurus as a god: it appears from a curious letter, ad fam. XIII 1, written from Athens by Cicero to Memmius who had just gone to Mytilene, that the latter had obtained from the Areopagus a piece of ground on which stood some ruins of Epicurus' house, and that he wished to pull these down in order to build for himself. Though he had now abandoned the design of building, he churlishly refused to give up the property to Patro, at that time head of the school. Patro and his sect looked on these ruins as a holy place; and Cicero out of love for him and his predecessor Phaedrus and above all Atticus, begs Memmius, as the ground is now of no use to him, to let them have it. All through the letter he expresses himself, and assumes that Memmius feels, the greatest contempt for epicurean tenets; but he says he loves Atticus as a brother, 'non quo sit [Atticus] ex istis [epicureis]; est enim omni liberali doctrina politissimus; sed valde diligit Patronem, valde Phaedrum amavit'. And surely Lucr. too had exceedingly esteemed Patro, exceedingly loved Phaedrus: *Id cinerem aut manis credis curare sepultos.*

Most readers of this opening address, like the one who of old placed in the margin of the ms. the six lines from the 2nd book, must have been struck by its curious contrast with the poet's philosophical principles. Bayle in his article on Lucr. n. I says it is most reasonable to call it a 'jeu d'esprit'. Lucr. seeing that all poets invoked the muses at the beginning of a great work, did not wish to be without a like ornament and chose Venus as the divinity most suitable to a natural philosopher: in the same way he invokes Calliope VI 94. There is some plausibility in this: Calliope we at once feel to be an ordinary personification of the epic muse; and had Lucretius' address to Venus had no more depth of feeling in it than that to Calliope, or other poets' invocations of the muses, we should have accepted her as a simple impersonation of the active energy of nature. But the intense earnestness of the language, the words plain and simple in themselves, yet instinct with life and passion, make us feel that there is more than this. If the poet began

with such an intention, his headstrong muse has got the better of his philosophy, and constrained him to follow her guidance. This perhaps is his best defence, if defence be needed: νουθετεῖται μὲν ὑπὸ τῶν πολλῶν ὡς παρακινῶν ἐνθουσιάζων δὲ λέληθε τοὺς πολλούς. Montaigne, essais III 5, has well perceived the characteristic features of this passage. He quotes the latter part of it and then compares it with a fine passage of the Aeneid, VIII 387 foll.; and thus concludes 'Quand je rumine ce *reicit, pascit, inhians, molli, fovet, medullas, labefacta, pendet, percurrit,* et cette noble *circumfusa* mère du gentil *infusus*, j' ay desdain de ces menuës pointes et allusions verbales qui nasquirent depuis'. How tame even Spenser's elegant paraphrase and Dryden's translation are by the side of the original. Lamb. cites with approbation P. Victorius who argues from Plut. adv. Col. and Cic. de nat. deor. I 45, that Epic. did not forbid sacrifice and prayer to the gods; 'habet enim' says Velleius 'venerationem iustam quidquid excellit'; but he adds that Lucr. prays here not as a philosopher, but as a poet.

Many motives doubtless were acting at once on the poet's mind. Venus was symbol of the all-pervading living force of nature; she was legendary mother of the Romans: Mars ruled the first, she the second month of spring and the year. Mars indeed in the old Italian mythology was the youthful and beneficent god of plenty, father of the Latin races: 'cum hodieque' says Macrob. sat. I 12 8 'in sacris Martem patrem, Venerem genetricem vocemus'. Why then does Lucr. desert the true old conception of this god, one seemingly well-suited to his purpose, and adopt the Greek legend? From the time of Ennius at least the Roman poets good and bad alike borrowed the setting of their poetry from Greece: the fauns and casmenae had yielded for ever before the muses of Helicon. Mars had now become an Ares, the destroying lord of war. Again though Empedocles' poem on nature was much shorter than that of Lucr. and doubtless in many respects inferior, yet to some extent it was to the latter what the Iliad and Odyssey were to Virgil, his technical model. Among the recently discovered fragments of Empedocles there is an address to Calliope which Lucr. prob. had in his mind when he penned VI 94. Empedocles' two great principles of love and strife by whose alternate victory and defeat he personified the ceaseless round of nature had evidently a great influence on Lucr. Comp. now the passages quoted by Sturz Emped. 240 sqq. Eustathius there tells us that Empedocles made the union of Ares and Aphrodite the symbol of his love, their release by Hephaestus the symbol of his hate: Heraclides in his allegories declares that Homer, in naming strife Ares and love Aphrodite, confirmed the τὰ Σικελικὰ δόγματα or doctrine of Empedocles.

Long as this discussion is, I will call attention to another point: observe 26 *Memmiadae* nostro *quem tu, dea,* cet. and compare the coins of

the Memmii in Cohen's médailles consul. and esp. Mommsen's Roem. Muenzw. p. 597: it will be seen that Venus crowned by Cupid appears on the coins of this Memmius and apparently his elder brother Lucius. You come to the flatterers of the Julii before you find so large a proportion of the coins of any family with Venus on them. We know from Virgil, who is said to have taken it from the Punic war of Naevius, that the Memmii claimed descent from the Trojan Mnestheus. In Aen. XII Mnestheus is called *Assaraci genus.* The Memmii may have claimed Venus for ancestress, though Virgil reserved that honour for the Julii. At all events Venus must have been held in peculiar honour by them; and Lucr. may have wished to gratify his patron, by making her his own patron lady. Cohen says p. 112 'Hercules and Venus were the objects of the peculiar veneration of Sulla; therefore we see the head of Venus on nos. 49 and 50, and that of Venus on 51'. Now Cohen mentions two other coins of the Memmii which have a head of Hercules; and Mommsen p. 642 describes two struck by the son of our Memmius, one with a head of Ceres, in honour of his father; the other in honour of a remoter ancestor, with a Ceres and the legend MEMMIUS· AED· CERIALIA· PREIMUS· FECIT. At the opening of book V Ceres is spoken of and a long enumeration made of the deeds of Hercules, which are shewn to be far inferior to those of Epicurus. In the beg. of VI the discovery of corn is recorded, but declared far inferior to that of philosophy by Epicurus. Did Lucr. mean to say 'You pride yourself, Memmius, on your family connexion with Hercules and Ceres; but let me tell you you had better learn to be proud of the philosopher'? Many of these motives may have weighed with Lucr. and his poetical instinct carried him beyond his first intention. Let me here refer to Prof. Sellar's Roman poets of the republic p. 276 foll.

50—61 he calls on Memmius to attend, while he explains the nature of the first elements of things. 50 Lach. has rightly seen, as I have said in notes 1, that the interpolated verses have thrust out the protasis of this sentence, in which Memmius must have been addressed; unless the Verona interpr. Verg. misquotes and refers to IV 912 *tenuis aures animumque sagacem*; which is not probable: the omission of part of the v. in A B suggests a still greater disturbance. *Quod superest* a favourite expression of Lucr. for 'to proceed to what remains' 'moreover'; and often put in the middle of a sentence at the beg. of the apodosis, as here: compare II 39, 491, VI 1000 etc.: see also II 546 and IV 205, where it is in another part of the sentence: perhaps Aen. IX 157 is likewise a case in point. *vacuas auris* is well illustrated by Quintil. inst. X 1 32 *Neque illa Sallustiana brevitas qua nihil apud* aures vacuas *atque eruditas potest esse perfectius, apud occupatum variis cogitationibus iudicem et saepius ineruditum captanda nobis est.* *sagacem* a favourite

epithet in Lucr. of *animus* and *mens*: the metaph. is from the scent of dogs, and is well illustrated in Forcell. where however de nat. deor. should be de divin. 51 *Sem. a curis*: wisdom and happiness being unattainable without ἀταραξία or perfect exemption from care and trouble. *veram ad rationem* = Epicuri philosophiam: comp. v 9 *vitae rationem invenit eam quae Nunc appellatur sapientia. ratio* is as common in Lucr. as it is in Cicero, and has perhaps as many meanings: notice the word here and 54 and 59, the sense in each case different: and comp. 128—130 *ratio...qua fiant ratione...ratione sagaci* within three lines. II 1023 *Nunc animum nobis adhibe veram ad rationem.* 52 comp. Ciris 46 *Accipe dona meo multum vigilata labore*, in which there is also a reference to 142 *noctes vigilare serenas. disposta*, as III 420 *pergam disponere carmina*: it has the same sense as *digerere.* 54 *de sum. cae. rat.* as below 127 *superis de rebus habenda Nobis est ratio.* 55 *incipiam* rather attempt than simply begin; so IV 29 *Nunc agere incipiam*: see Prof. Conington to Aen. II 13, who refers to Henry: the two meanings however easily pass into one another: VI 432 *Rumpere quam coepit nubem*; and so *inceptum, coeptum.*

55 foll. *rerum primordia* or *primordia* alone is here declared by Lucr. to be his proper and distinctive term for the atoms or first elements of things. Once, IV 28, he oddly resolves it into *ordia prima*; sometimes he has instead of it *cunctarum exordia rerum.* In the gen. dat. and abl. where these words do not suit his verse, he uses *principiorum* and *principiis*, in the plur. only: 707 *principium* applies to those philosophers who had only one first-beginning. *principia* he never employs, thus shewing that *primordia* is his proper and distinctive term, and the other a mere substitute, which he need not therefore here mention: II 313 *primorum* is used for *principiorum.* 'First-beginnings' seems to me to give the peculiar force of the term better than any other word I can hit upon: ἀρχαί, τῶν ὄντων ἀρχαί and the like are the equivalents in Epicurus and others. He goes on to enumerate several synonymes: *materies* i. q. ὕλη, *corpora genitalia* or *prima*; *corpora* alone or *corpora rerum* is more common and used at least as often as *primordia; corpuscula* too is not uncommon: *semina rerum* which he mentions here or *semina* alone is frequent enough. σώματα, ἄτομα σώματα and the like in Epicurus. Lucr. has no equivalent for αἱ ἄτομοι or ἄτομα σώματα. Cicero uses *corpuscula, atomi, id est individua corpuscula*, and *individuum* as a subst. to express the atoms of Epicurus or Democritus. Lucr. does not here mention *elementa* which is not rarely found in his poem and answers to one of the commonest Greek words στοιχεῖα. ὄγκοι, bulks or magnitudes, often occurs in Epicurus Sextus and others. None of the above terms is employed by Lucr. in the sing. to denote one atom except *corpus* once or twice: in fact he rarely needs the singular: *figurae* or shapes is not

unfrequent with him for his atoms, corresponding in this sense to the εἶδος and ἰδέα of Democritus who also has φύσις and the strange δέν.

56 57 *Unde* = ex quibus, *Quove* = et in quae. *Unde*, *Quove*, *Quae* all refer to *primordia*. *Quove*: III 34 *Quove*; but in the spurious repetition IV 47 *Quoque*. V 71 184 and 776 *Quove*: 168 and 176 are not in point, as *ve* has there its proper force. VI 29 *Quidve*: II 64 *Quaeque*: V 185 *Quidque*. In the above cases the *ve* seems = *que*: comp. Wagn. quaest. Virg. XXXVI 5, where it appears that Virgil's usage is much the same. One might suppose that this use began from a wish not to confound the relative with *quisque*: thus III 34 *Quoque modo possint res ex his quaeque creari* would have been ambiguous. As *quicque*, not *quidque*, is the neut. of *quisque*, there would be no objection to *quidque* which is found in V 185; yet in II 64 A B Gott. etc. have also *Quaeque*; and IV 634 and VI 533 *quareve* = quareque, which would not be ambiguous. 57 *eadem* is of course fem. *perempta* being synom. with *res peremptas*. Lucr. has no objection to change to the neut.: 157 *res quaeque*, 158 *quaeque* neut.: this of course has no bearing on Wakefield's absurd argument that 190 *Crescentes* = *res crescentes*. Lucr. like the older writers generally, does not seem to have felt the ambiguity of *perempta* in the neut. coming next to *natura*: comp. V 1414 1416 and 1417. 58 *gen. corp. rebus* seems = *cor. quae sunt gen. rebus*: see Prof. Conington to Aen. II 556, who there quotes Aen. X 135 *Aut collo decus aut capiti*, and 203 *Ipsa caput populis*; and Madvig Lat. Gr. 241, 3, where Tac. hist. I 89 *longo bello materia* is not unlike this passage of Lucr. who thrice has *caput* with a dat. for a river-head: see Lach. to VI 729. 60 *suemus* and other parts of the verb are dissyll. or trisyll. indifferently in Lucr. *usurpare*: see Forcell. for instances from Cicero of this use. 61 *primis* seems in appos. with *illis*: illis, ut primis: comp. Virg. ecl. VI 33 *ut his exordia primis Omnia*.

This paragraph, 50—61, is in many respects the least satisfactory in the 1st book. It has no connexion with what precedes: but that, as we have seen may be owing to the accidental loss of some verses: it has no proper connexion with what follows; for the poet passes on to Epicurus, almost as abruptly as he left Venus for Memmius. Next let us test the passage itself: he tells Memmius what he is going to sing of: first of heaven and the gods. That occupies only a portion of books 5 and 6. Then in the rest of the paragraph he says he will explain the nature of his first-beginnings. That explanation fills a part of books 1 and 2. Thus he puts what is to come in the last two books before what comes in the first two; and he says not a word of the matters discussed in the rest of these four books and in the whole of the 3rd and 4th. Then the language of 56—61 seems clumsy disjointed and ill-arranged. If now we turn to 127—135, we see that he first repeats in other words

what he had said in 54 more briefly; then 129 adds *qua vi quaeque gerantur In terris*, which may be said to form the subject of the rest of books 5 and 6; and then 130 foll. he proceeds, *tum cum primis* must we discuss the nature of the soul and mind, and the theory of images; which topics occupy precisely the 3rd and 4th books: which in the former summary were wholly omitted. But here on the other hand he says nothing of his first-beginnings, which in the former passages were dwelt upon almost exclusively; and yet the course of his poem almost directly after turns to this very question which is then fully and systematically discussed. On the whole one is tempted to surmise that nothing has been lost before 50; but, what comes to the same thing, that the passage was left imperfect by the poet and not properly connected with what precedes and follows. What connexion there is is both very abrupt and very constrained and artificial.

62—79: human life lay prostrate beneath religion, until a man of Greece rose up, explained the true system of the universe, and trampled on religion in turn. 62 *ante oculos* plain for all to see: often used by Lucr. in cognate meanings, as 342 and 984 (998) for what is visible to sense. 63 *religione*, with one *l*: so the best mss. of other authors also: *rellig.* only once in AB. 65 *super* often in Lucr. has the sense of *insuper* or *praeterea*, never I think that of *desuper*: the former may be its meaning here; though that would be weak; I take it therefore as in 39 *circumfusa super* 'being above him', and Aen. IX 168 *Haec super e vallo prospectant Troes*, 'the Trojans being above look forth etc.' so here 'standing over mortals being herself above'. I doubt whether in Virgil it ever bears the sense of *desuper*: in Aen. V 697 I take it to mean *insuper*: yet there is no question that *superne*, a favourite word with Lucr., sometimes has the force of *desuper*; and the two meanings are often not easy to discriminate. 66 *Graius homo*, as Enn. ann. 183; and Virg. Aen. X 720 who imitates probably both Ennius and Lucr.: Ennius twice uses in the same way *Romanus homo*. *contra* at the end of this and the next verse are of course in intentional apposition, as are *primus* and *primum*. 68 *fama deum*: see notes 1: so Livy X 24 17 *ad famam populi Romani pertinere*. Heyne and Prof. Conington seem to me rightly to explain in the same way Aen. IV 218 *famamque fovemus inanem*: thus Epicurus proved the *fama deum* to be *inanis*, full of sound signifying nothing. Indeed an epithet to *fama* would to my mind impair, not increase the force of the expression. 70 *Inritat* perf.: so VI 587 *Disturbat urbes*, and V 396 *superat et* which seems a certain conj. of Lach.: in each case the *-at* is followed by a vowel; but on this point see n. to III 1042 *obit*. 70 *arta* always; so *autumnus*, but *auctus* and the like: comp. *quintus*, *Quintus*, but *Quinctius*: in the list of πρόξενοι in Wescher and Foucart's inscript. rec. à

Delphes no. 18 we find the praenomen Κόϊντος more than once, but l. 112 Τίτος Κοίγκτιος of Flamininus: yet in the new corp. inscr. Lat. 1008 *Quinctus* is once found; and Plaut. trin. 524 A has *quincto*: but this spelling seems to have been quite obsolete in the time of Lucr.: comp. too *fartus sartus*, *setius*, in Plautus still *sectius*. 71 *cupiret*: Enn. ann. 10 *Ova parire solet*; 384 *si vivimu' sive morimur*; Ov. met. XIV 215 *cupidusque moriri*.

73 Epic. is of course the subject of *Processit* and *peragravit*. *flamm. moen. mundi* a noble expression which frequently recurs, to denote the fiery orb of ether that forms the outer circuit of the world: its nature is fully described in the fine passage V 457—470, ending with *Omnia sic avido complexu cetera saepsit*, imitated in paradise lost III 721 *The rest in circuit walls this universe*: the use of 'universe' is of course quite unepicurean. It may be a question whether *mundi* in this phrase means the whole world, or is a synonyme, as it so often is, of *caelum* or *aether*: it certainly appears to have the latter meaning in VI 123, where *capacis* well expresses the *avidus complexus* of ether: the former seems more poetical and is confirmed by the imitation in Manilius I 151 *Flammarum vallo naturae moenia fecit*, where *naturae* clearly denotes the whole world: this constant imitator of and carper at Lucr. has also 486 *moenia mundi* in a passage where he is trying with his usual heaviness to refute Epicurus and him. 74 an emphatic oxymoron: he passed beyond this world and traversed in thought the immeasurable universe: Cic. de fin. II 102 must surely have been thinking of this passage when he says *haec non erant eius qui innumerabilis mundos infinitasque regiones quarum nulla esset ora, nulla extremitas, mente peragravisset*: see Madvig: and Hor. od. I 28 5 *animoque rotundum Percurrisse polum morituro*. *mente animoque* a mere poetical tautology: III 84 *animum dico, mentem quam saepe vocamus*; and all through that book they are synonymes; he more than once too uses *mens animi*, as does Catullus after him: Virgil was probably thinking of these words and this rhythm in Aen. VI 11 *magnam cui mentem animumque*; though the expression is common in prose, as Cic. de leg. I 59 *animo ac mente conceperit*, and Tac. Germ. 29 and Caes. de bell. Gall. I 39. 75 Lamb. seems right in comparing *refert victor* with Aen. IV 93 *laudem et spolia ampla refertis*: where *refertis* however is simply 'carry home', as Plaut. Poen. IV 2 25 *domum haec ab aede Veneris refero vasa*. At the same time it here unites the common and cognate meaning of a messenger or the like bringing back a report: see Madv. Cic. de fin. p. 311, who says Livy first used it for *narrare*: but Virgil did so surely before him; the two senses I have tried to combine. The end of this and the whole of the next two verses are repeated again in this book and in the 5th and 6th. 77 *alte term. haer.* the metaphor is of course from a stone pillar fixed in

the ground as a boundary between two properties: II 1087 *vitae depactus terminus alte*; Aen. IV 614 *hic terminus haeret*: not unlike are Attius 481 *Veter fatorum terminus sic iusserat*, and Hor. carm. saec. 26 *stabilisque rerum Terminus*. 78 *pedibus subiecta*: Virg. georg. II 490 *Felix qui potuit rerum cognoscere causas Atque metus omnis et inexorabile fatum Subiecit pedibus strepitumque Acherontis avari* evidently alludes to this and some other passages, III 37 *Et metus ille foras praeceps Acheruntis agendus*, 1072 *Naturam primum studeat cognoscere rerum*, and V 1185 *quibus id fieret cognoscere causis*. Many even suppose the *Felix qui* is Lucr. himself: perhaps Virgil alludes to some ideal philosopher, such as Eurip. fragm. inc. 101 Dind. paints Ὄλβιος ὅστις τῆς ἱστορίας Ἔσχε μάθησιν κ.τ.λ. Lucretius and the *magni docta dicta Syronis* would have prompted Virgil to think rather of Epicurus than of Lucr. himself; and Virgil's words point more to a philosophical teacher than a poet.

80—101: think it not sinful thus to spurn religion: nay rather it is religion who is the mother of unholy deeds; such as the sacrifice of Iphigenia by her own father. 80 *Illud in his rebus*, a prosaic, but very favourite phrase of Lucr. to denote some special point in the general question. 82 *indugredi*; also *indupedire* and *induperator* are often used by him; *indeptus* and *iacere indu* for *inicere* once each; as well as *indu manu* and *endo mari*: in imitation I presume of Ennius: in the remains of the latter *indu* governs the abl. *endo* the acc. The forms appear to be epic, not occurring in the fragments of Ennius' or other tragedies: *indaudire* is the sole vestige of it in Plautus: see Ritschl trin. p. CXLIII. *quod contra*: *quod* is used absolutely, as 623 *Quod quoniam ratio reclamat*, where see note; comp. Cic. de fin. V 76 *Quod item fratri puto*; where Madvig compares de senectute 85 *Quod contra decuit ab illo meum*, and two other passages already quoted by Lamb. and Faber. *illa* emphatic in a bad sense, as IV 181 and 910 *ille gruum clamor*: II 362 *Fluminaque illa* in a good sense. 84 *quo pacto*, as 912. 86 *prima virum*: a harsh expression, like Ov. am. I 9 37 *Summa ducum Atrides*, inclosed in brackets by Luc. Mueller: Statius perhaps imitates Lucr. in silv. III 3 197 *tibi cuncta tuorum Parebunt*, and V 1 79 *qui cuncta suorum Novit*, and is even harsher. τὰ πρῶτα followed by a masc. gen. is common enough in Greek. 87 *infula* a flock of wool knotted regularly along a *vitta* or riband, fastened by this riband round the head and hanging down *pari parte* over each side of the head: worn by priests and victims, as often seen on works of art: comp. Rich's companion s.v.: also georg. III 487, and Ov. ex Ponto III 2 74 *Ambiat ut fulvas infula longa comas, Dumque parat sacrum, dum velat tempora vitta*, of Iphigenia about to sacrifice Orestes and Pylades: she wears in Lucr. the *infula* of a victim instead of the *vittae* of a bride, which would have better become the *virgineos comptus*. The constr. of *circ. comp.* is like

38: see n. there. *comptus*, that is *compta coma*, used by Afranius also according to Festus. 88 the constr. is *Ex utr. mal., pari parte: pari parte* being almost an adv. in the sense of *pariter*: v 674 *Et pariter mollem malis demittere barbam*: Lucr. never cares to avoid such ambiguities. 92 *genibus summ.* lit. 'let down by her knees': comp. Ov. met. IV 340 *flexumque genu submisit*: and VII 191 *in dura summisso poplite terra*: Valer. Max. VI 8 4 *ut se tremibunda Pindari genibus summitteret*, the constr. is quite different; though it is just possible that *genibus* in Lucr. may be the knees of others. 92 *petebat* more graphic than the perf. 93 *in tali tem.*: Lucr. is fond of this use of *in*: 26 *tempore in omni*, 98 *tempore in ipso*, 234 *in eo spatio*: and so throughout: it is not uncommon in older and later writers, even Cicero. 94 Lamb. compares Eurip. Iph. A. 1222 πρώτη σ' ἐκάλεσα πατέρα καὶ σὺ παῖδ' ἐμέ, which Lucr. imitates, and not, as Blomfield thinks, Aesch. Agam. 214 (220). 95 *tremibunda* A B: see Lach.: and so mss. of Virg. Aen. x 522, and A of Kempf Valer. Max. VI 8 4.

95—100 a highly elaborated passage: in the first part a studied ambiguity in the terms which are common to marriage and sacrifice; in the last a studied contrast between the youth and innocence of the victim and her cruel fate. *sublata* like λαβεῖν ἀέρδην in Aesch. Agam. 220; alluding at the same time to the ceremony of taking the bride by violence from the arms of her mother. *virum* the general term to indicate at once the *ministri* and the *viri* who executed this formal rape. *tremib.* expressing at once the trembling of the victim, and the fluttering anxiety of the bride. *deducta*, said of the victim, is also the proper term for escorting the bride to her husband, *mihi deductae fax omen praetulit*. In a very old elegiac epitaph found at Beneventum, forming 1220 of the new corpus inscr. Lat. and 1623 of Mommsen's inscr. Neapol., a deceased wife says *Nunc data sum Diti longum mansura per aevum, Deducta et fatali igne et aqua Stygia.* 96 *soll. more sacr.* the sacrifice of the sheep etc. in the most solemn form of marriage. 97 *claro hym.* of which we have so brilliant a specimen in Catull. LXI. *comitari* pass. also in Ov. and Pliny: see Forc. 98 99 the position of the words is very artificial: *inceste*, denoting the pollution of blood, is separated from *concideret* in order to contrast better with *casta* and *nub. tem.* when all occasion of pollution should be far away: *maesta* disjoined from *hostia* and put between *mactatu* and *parentis* gains great additional force: then notice *mact. par.*; the father who should give away the bride, is he who murders her; then too the place in the verse of *hostia* and *maesta* seems intended to be parallel with that of *Exitus* and *felix faustusque* in the foll.: *casta inceste* see n. to II 1054 *innumero numero.* 99 *mactatu* seems a ἅπαξ λεγόμενον. 100 *Exitus* the setting sail from Aulis: comp. IV 398. 101 *Tantum...malorum* is found in the Ciris 455, cited by

Wak. as well as in v 227 *Cui tantum* cet. What did Lucr. think of the fate of his own countrymen the Decii? In the above passage I find no trace of imitation of the Agamemnon, unless the very doubtful one of *λαβεῖν ἀέρδην* in 95; but clear indications here as elsewhere that Lucr. had carefully studied Euripides: 94 we saw is almost a translation of a line of Iph. Aul. Again with 98 99 comp. 1178 foll. of that play, *ἀπώλεσέν σ', ὦ τέκνον, ὁ φυτεύσας πατὴρ Αὐτὸς κτανών, οὐκ ἄλλος οὐδ' ἄλλῃ χερί*, and 1315 *ὦ δυστάλαιν' ἐγώ...φονεύομαι διόλλυμαι Σφαγαῖσιν ἀνοσίοισιν ἀνοσίου πατρός*: and with 101 comp. 1334 *μεγάλα πάθεα κ.τ.λ.* where Helen takes the place of religion. Again one of the most striking things in this description is the allusion to the rites of marriage: now just after the passage last quoted Achilles, to whom Iphigenia was betrothed, enters on the scene and offers to rescue his bride from death.

102—135 'you will yourself at times fall away from me, frightened by vain tales of eternal punishment, which men adopt from ignorance of the soul; about the nature of which there are many false theories: one is that of transmigration adopted by poet Ennius; his hell being peopled only by phantoms of the living. I must therefore in addition to what I have already promised explain the true nature of the soul, as well as of those idols which frighten us in sickness or sleep'. 102 *Tutemet* or *tutimet* a rare word, found also IV 915 and in Ter. heaut.: the double suffix is curious; but Lucr. uses also *tute ipse*. *vatum* the oldest name for poets, as we are told by Varro and Enn. ann. 222, afterwards, as is well shewn by Luc. Mueller de re metr. p. 65 foll., fell into complete contempt and was discarded for *poeta*: this latter name is given to themselves by Naevius Ennius Pacuvius; to Homer by Ennius, and is used in a good sense by Cicero Lucr. and Catullus. By Virgil and succeeding writers *vates* was again brought into honour and was used for an inspired bard, something higher than *poeta*, as Virg. ecl. IX 34: the same again brought into fashion the antiquated and despised *camenae* or *casmenae*, even confounding them with their rivals and conquerors the muses. With Lucr. here and 109 it is a term of contempt to denote apparently singers of old prophecies and denouncers of coming ills, like the Marcius of the 2nd Punic war cited by Livy and Macrobius: comp. Horace's *annosa volumina vatum*: the epicurean Velleius in Cic. de nat. deor. I 55 contemptuously joins *haruspices augures harioli vates coniectores*. 103 *terriloquis*: lexicons give no other instance of the use of this word: Virg. Aen. v 524 has *terrifici cecinerunt carmina vates*. The poet's mistrust of Memmius here and in 332 is curious and would seem to confirm what has been said of the small respect which the latter shewed to Epicurus and epicureans. 104 *fingere somnia*: Virg. ecl. VIII 108 *ipsi sibi somnia fingunt*. 105 *vertere* = *evertere* in Virg. Aen. I 20 II 652 X 88; also in Horace Ovid and perhaps

Cicero, as shewn by Forc. 106 *turbare*: Wak. compares Aen. XI 400 *omnia magno Ne cessa turbare metu.* 107 *certam finem. finis* is always fem. in Lucr.: the mss. II 1116 have *extremum finem* which Lach. rightly alters. 109 *Relig.* often used by Lucr. in the plur. for religious fears or scruples: he twice has *religionum nodis exsolvere*, shewing that he felt *religio* to be connected with *religare*, as does Cic. de domo 105 *nisi etiam muliebribus religionibus te implicuisses*, though elsewhere he wrongly derives it from *relegere.* 110 *restandi* common enough in the poets for *resistendi*: see Forc. 111 Lach. here and V 302 adds *est* omitted in mss. because, he says, it cannot be omitted after the gerund, unless an infin. *esse* or a compound of *esse* follow. I have followed him in both places, but with hesitation, as Serv. to Aen. XI 230 quotes our verse without *est.* Lamb. cites 5 other instances from Lucr. of this gerundial constr.: add V 44 *pericula tumst ingratis insinuandum*, and comp. Serv. l. l. where *pacem petendum* is read on his authority and that of other grammarians against the best mss.

113 two theories of the origin of the soul; the true one that it is born with the body, the false that it enters the body at the body's birth: 114—116 three theories of the soul after death, first the true one that when severed from the body, it dies with it; secondly the false one that it enters Orcus; thirdly the equally false one that it migrates into some other living creature: Ennius believed in the Pythagorean transmigration of souls, and therefore in the 2nd and false theory of the soul's origin and the 3rd and false one of its migration after death: ann. 10 *Ova parire solet genu' pinnis condecoratum, Non animam; et post inde venit divinitu' pullis Ipsa anima.* 115 *lacunas* may mean pools of water, as V 794, VI 552; or merely hollows, chasms, as apparently VI 538, and Cic. Arat. 427 *Insula discessit disiectaque saxa revellens Perculit et caecas lustravit luce lacunas.* 116 *pecudes alias* seems clearly a Grecism, like Herod. I 216 θύουσί μιν καὶ ἄλλα πρόβατα ἅμα αὐτῷ, and Empedocles 141 Karsten ἄνθρωποί τε καὶ ἄλλων ἔθνεα θηρῶν. Aen. VI 411 *alias animas...Deturbat...simul accipit Aenean.* *insinuet* a very favourite word of Lucr. with many constructions: either active as here with two accus. one transit. the other governed by the *in* (comp. *haec animum advertere*); or with one accus.; or neut. with an accus. gov. of the *in*, or neut. with *per*: oft. too passive; once, IV 1030, followed by an accus.; elsewhere by a dat. as 113, or a prep. *per* or *in.* 117 *qui primus* etc. that is, who first brought to Latium the muses of Helicon and introduced Greek metres and Greek principles of art: comp. ann. 221 *scripsere alii rem Vorsibu' quos olim Faunei vatesque canebant; Cum neque musarum scopulos quisquam superarat Nec dicti studiosus erat*: the *mus. scop.* being the rocks of Helicon. To this Porcius Licin. refers ap. Gell. XVII 21 45 *Poenico bello secundo musa pinnato gradu*

Intulit se bellicosam in Romuli gentem feram. 119 *gentis It. hom.* seems simply to mean those races of men which are Italian, not unlike IV 733 *Cerbereasque canum facies*; but see n. to 474; and comp. 10 *species verna diei.* *clueret* a favourite archaism of Lucr. = sometimes *audio,* sometimes simply *sum.* Ennius ann. 4, if the reading of Vahlen is right, speaks even more proudly, *Latos per populos terrasque poemata nostra Clara cluebunt*: but this reading is more than doubtful. 120 foll.: but though he holds this opinion, he yet moreover believes in Acheron, teaching however that only bloodless idols of the dead dwell there; one of which appeared to him in the shape of Homer. 120 *Etsi praet. tam.* is somewhat prosaic. *Acher. templa* occurs also III 25, and is found in Enn. trag. 107 *Acherusia templa alta Orci.* Lucr. is very fond of the expression *caeli templa* with various epithets; he has also *caelestia* and *mundi templa*: it is not uncommon in Ennius and others: the phrase seems evidently adopted from the augural division of the heaven into *templa*: hence it conveyed a stately solemn notion; and is applied to Acheron; Plautus miles 413 has *in locis Neptuniis templisque turbulentis*: V 103 *humanum in pectus templaque mentis*; IV 624 *linguai templa,* where see note.

122 body and soul do not hold together and reach this Acheron, but only pale idols. *permaneant* seems especially said of the soul or body continuing after death, like διαμένειν: comp. Sext. Emp. adv. math. IX 72 καὶ καθ' αὑτὰς δὲ διαμένουσιν [αἱ ψυχαί], καὶ οὐχ ὡς ἔλεγεν ὁ Ἐπίκουρος κ.τ.λ. and 74 εἰ οὖν διαμένουσιν αἱ ψυχαί. Cic. Tusc. disp. I 108 *cera circumlitos condunt ut quam maxime permaneant diuturna corpora*: of the soul more than once, as ib. 36 *permanere animos arbitramur consensu nationum omnium*; *qua in sede maneant* cet.: below he quotes a passage from an old tragedian, probably Ennius, to which possibly Lucr. may here refer, *Unde animae excitantur obscura umbra, aperto ex ostio Altae Acheruntis, falso sanguine, mortuorum imagines,* as it is read in Baiter and Halm's ed. It may be said that with Ennius the soul did not dissolve: that is so; but it went into another body and entirely changed its condition; and Ennius no doubt thought of the dissolution of the old body and soul as complete. With *Quo perman.* i. e. usque ad Acher. templa, Lach. compares several passages: Ovid ars II 120 *Solus ad extremos permanet ille rogos* is perhaps the most in point. 123 Virg. has at least four imitations of this v.: georg. I 477 repeats the very words. 124 Ennius ann. 6 *Visus Homerus adesse poeta* is a fragm. of this vision: Cicero more than once infers from these words that it was a dream, not a real vision. 125 the tears were doubtless in regret for life: Aen. II 271 Hector seems to weep for his own wounds and the fall of Troy. 126 *expandere* = V 54 *rerum naturam pandere*: it is a rare word. 127 alludes of course to 54, where I have spoken

of this passage. 130 *tum cum primis* cet. that we may know the real nature of the soul; *unde*, out of what elements, viz. bodily; and so not be misled like Ennius and others, or dread eternal punishment. *tum cum*: *tunc cum* A B; also III 710, VI 250 both have *tunc* before a consonant, but nowhere else. Lach. therefore, as Flor. 31 Camb. before him, properly reads *tum* after the usage of older writers: see also Wagner quaest. Virg. XXV 5: it speaks well for our mss. that they err so rarely: *tunc* before a consonant must have become common in the silver age. 132 *Et quae res* etc. as explained in the 4th book: *res* is the *imagines* or *simulacra*, 'images or idols', εἴδωλα, which are shed from all things, not the bloodless phantoms, which Ennius feigns to issue out of Acheron; and which terrify us when sick or asleep. The constr. of this verse misunderstood by Creech is shewn by IV 33, which is the best comment on it, *Atque eadem* (simulacra) *nobis vigilantibus obvia mentes Terrificant atque in somnis, cum saepe figuras Contuimur miras simulacraque luce carentum*: it thus appears that *vigilantibus* and *morb. adf.* are here in apposition. The emphatic repetition of these horrid visions seen in sickness might seem to confirm what is related of the poet being subject to fits of delirium, or disordering sickness of some sort. 133 *som. sep.*: V 975 *somnoque sepulti*; and used by Ennius before and Virgil after him. 135 repeated IV 734, but there *quorum* begins the verse. Virg. Aen. X 641 has *morte obita* and V 31 *tellus...gremio complectitur ossa*: Cicero also uses *morte obita*. As he treats of the soul and these images at such elaborate length in III and IV, it might seem that the motives he here assigns are too narrow; but the fact is that like a true disciple of Epicurus he wishes to persuade his reader or himself that he discusses these questions not for their scientific interest, but to free man from vain fears of the gods and death, and to produce that tranquillity of mind, without which happiness is not possible: he reiterates the same just below, 146—158.

136—145: 'the task is difficult; but love of you and your worth encourages me to labour to make these questions clear'. 136 *Nec me animi fallit* is found also 922 and V 97: Ter. eun. 274 *ut falsus animi est*: this use of *animi* is common after many verbs and adjectives: *pendere animi* is in Cicero; Plautus trin. 454 has *Satin tu es sanus mentis aut animi tui*, shewing the idiom is not confined to *animi*. Madvig emend. Liv. p. 136 says 'neque Cicero neque Livius neque quisquam post comicos et Lucretium (apud quem est *animi fallit*) genitivum illum adiunxit nisi iis verbis, quae dubitationem et sollicitudinem significant'. 138 *Multa...agendum* the same constr. as 111 *poenas tim.* 139 on this and similar passages see what has been said above p. 100. 141 *amicitiae*, with reference probably to the great importance Epicurus attached to the cultivation of suitable friendships. Observe that Lucr. speaks only

of the hope of Memmius' friendship, not of its possession. *sufferre laborem* occurs in Enn. ann. 405. 142 *noctes serenas*: comp. Virg. ecl. IX 44 *te pura solum sub nocte canentem*: *serenas* seems merely a poetical epithet. 143 *demum*: comp. 486 *solido vincunt ea corpore demum*; Aen. I 629 *hac demum voluit consistere terra.* 144 *praepand. lum.* Lamb. explains 'δᾳδουχεῖν, praeferre faceis: praeferendo faceis lumen aperire. uno verbo Latino *praelucere*'; and comp. V 657 *auroram differt et lumina pandit*; Cic. Arat. 40 *hiberni praepandens temporis ortus.*

146—158: this terror and darkness of mind must be dispelled by the knowledge of nature; whose first principle is 'nothing can be produced from nothing by divine power': from this truth all the rest will follow. 146 147 148: these verses are repeated in the 2nd 3rd and 6th books, and form in fact the keystone of epicurean physics: the knowledge of nature is desirable not for itself, but in order to overthrow ignorance and superstition: Epic. says himself in his 10th κυρία δόξα ap. Diog. Laert. X 142 εἰ μηθὲν ἡμᾶς αἱ περὶ τῶν μετεώρων ὑποψίαι ἠνώχλουν καὶ αἱ περὶ θανάτου μήποτε πρὸς ἡμᾶς ἐστι,...οὐκ ἂν προσεδεόμεθα φυσιολογίας: Cic. de fin. I 64 the epicurean Torquatus says *Sic e physicis et fortitudo sumitur contra mortis timorem et constantia contra metum religionis et sedatio animi omnium rerum occultarum ignoratione sublata.* 147 though connected by the disjunctive *neque*, *luc. tela* are the *radii solis*. 148 *species* the outward form and aspect = 950 *Naturam rerum qua constet compta figura.* *ratio* is the inner law and principle after which nature develops itself. 149 *cuius* i. e. naturae: it is monosyll. also in Lucilius, as is *eius* in Cic. Arat. fragm. XIV: *Atque eius ipse manet.* *exordia sumet*: V 331 *neque pridem exordia cepit.* Cicero has *exordium ducat*: the metaphor is doubtless from beginning a web: see Forc. s. v. *ordior* and *exordior.* 150 so Diog. Laert. IX 44 of Democritus, μηδὲν ἐκ τοῦ μὴ ὄντος γίνεσθαι. Aristotle again and again declares this to be common to all physiologists. Lucr. adds to the definition *divinitus* and just below *divino numine*, because this is the fruitful source of religious fears. *nilo*: *nil* is always a monosyll. in Lucr. *nilum* and *nilo* are always dissyll. as is proved by this, that in most cases they must be, in all cases they may be of this quantity; and in no case must be dissyll. and trisyll. respectively. After the usual fashion of mss. A and B with hardly an exception write *nihil*, *nihilum*, *nihilo*: see Lachmann's precise note, who shews that Virgil in reality uses *nihil* only twice as a dissyll. 151 *continet* perhaps the metaph. is from a master keeping in his pupils. 153 *Quor. operum*: see n. to 15. 156 (157) *quod sequimur* Bentl. explains by τὸ ζητούμενον, τὸ ἀπορούμενον, as VI 808 *ubi argenti venas aurique secuntur*: it has much the same force V 529 *plurisque sequor disponere causas.* 157 158 (158 155) *et—et—* explain *quod sequimur*: these two verses therefore merely state in other words *Nullam rem e*

nilo gigni divinitus. 158 (155) *quaeque* is neut.: comp. 57. *opera sine divom* is said perhaps with reference to Attius 159 *Nam non facile sine deum opera humana propria sunt bona.*

159—214: 'if things could come from nothing, any animal might be born any where, any fruit grow on any tree. But that every thing comes from a definite seed is proved in many ways: flowers corn fruits come at stated seasons: again animals and plants require time to grow up: the products of the earth want rain at stated times, animals food: men are of a definite size, and never grow to a gigantic bulk: lastly the fruits of the earth require cultivation, and do not improve spontaneously'. From the nature of the case this is rather a full statement of what he means by nothing coming from nothing than a proof: his theory of fixed unchangeable seeds of things or atoms he subsequently demonstrates with masterly clearness and power: some of his arguments even Newton seems not to have disdained to borrow. 159 almost a transl. of what Epic. himself says in his letter to Herod. Diog. Laert. x 38, quoted by Lamb. and others, *οὐδὲν γίνεται ἐκ τοῦ μὴ ὄντος· πᾶν γὰρ ἐκ παντὸς ἐγίνετ' ἂν σπέρματός γε οὐθὲν προσδεόμενον.* 161 *mare*: Forc. cites several instances of this abl. from Ovid and others: add to his examples Ovid ars am. III 94, Ibis 196 (200): Ovid seems licentious in this point: he has *caeleste bimenstre* and other such ablatives. *primum* followed by no *deinde* or other particle: VI 1068 *Saxa vides primum* cet.: this form of expression is common enough in Cicero and others: Ter. Andr. 211 *primum iam de amore hoc comperit*: *Me infensus servat* cet.: Virg. georg. III 384 *primum aspera silva* cet. 162 is *squamigerum* nom. sing. or gen. plur.? for the former you have *mortale, humanum genus* and the like; but Lucr. also says *hominum genus*, etc. and elsewhere he uses the word only as a subst., *squamigerum pecudes* occurring twice. Lamb. marks it as a gen.: V 1156 *divom genus humanumque* shews how indifferently he uses both constructions. III 73 the gen. *consanguineum* seems a harsher contraction than *squamigerum*; or IV 586 *genus agricolum*, or *Aeneadum*: see also n. to V 727 *Chaldaeum.* 163 *arm. at. al. pec.* may be looked upon as one clause in appos. with *gen. om. fer.* 166 Virg. georg. II 109 *Nec vero terrae ferre omnes omnia possunt*: the expression is prob. almost proverbial, like *non omnia possumus omnes.* 167 *Quippe* is here joined with 168 *Qui*: *ubi—cuique* being a separate clause: so 242 *Quippe* belongs to *quorum*: *ubi—corpore* being a separate clause: but 182 *Quippe ubi* are of course connected. *gen. corp.* see n. to 58. 169 *At nunc,* very common in Lucr. when he is passing from what is not to what is true; also 221 *quod nunc,* 675 *Nunc igitur*; 110 and VI 570 *Nunc,* alone. 170 171 for constr. comp. n. to 15. *inde ubi*=ex eo, in quo. 171 *materies* and *corpora prima* are of course synon.; see n. to 58 foll. 172 common as *quare*

is in Lucr., this is the only instance of *hac re* = hanc ob rem: Cic. epist. ad fam. XIII 46 *ea re*. 173 *secreta* means of course distinct and peculiar to each.

174 Cic. Tusc. disp. V 37 says *neque est ullum quod non ita vigeat... ut aut flores aut fruges fundat aut bacas*: the *flores aut fruges fundat* answers precisely to *rosam—frumenta—fundi*; but then for *vites* you would expect *uvas* to complete the parallel; so that *vites fundi* seems to be said with a change of meaning and to=fundere se, i.e. fetus: comp. 351 *Crescunt arbusta et fetus in tempore fundunt*. 178 *tempestates* from the context implies the due seasons, as Lamb. rightly interprets; for *adsunt* can hardly mean, as Wak. explains it, 'are propitious': a god *adest* stands by and by that very act is propitious; and the same of *praesens*; but that does not apply to *tempestas*. 181 *at. al. par. an.* Virg. was prob. thinking of this expression and rhythm when he said georg. II 149 *atque alienis mensibus aestas*. 183 *concilio* is one of his regular technical words for the uniting of the atoms to form a *res*: the verb is used in the same way. For the double abl. comp. Madv. Lat. gram. 278 a: he quotes one clause of Cic. Brut. 315 with 3 abl. *meo iudicio tota Asia illis temporibus disertissimus*: the words there, as here, admitting no ambiguity: 1021, repeated V 419, has also three, *neque consilio primordia rerum Ordine se suo quaeque sagaci mente locarunt*: comp. II 218 *Ponderibus propriis incerto tempore ferme Incertisque loci spatiis decellere*; V 296 *multa caligine taedae Consimili properant ratione ardore ministro Suppeditare*. 184 *porro* a very favourite word of Lucr. with all the senses primary and secondary of our 'further'. 185 *ad* after or upon: VI 316 *ad ictum*: Cic. Verr. IV 32 *quo solitus esset uti ad hospitum adventum*; Sen. de benef. IV 6 6 *nunc ad surgentem iam aetatem...pubertas*. 186 *infantibu' parvis*: comp. Cic. orator 161 *quod iam subrusticum videtur, olim autem politius, eorum verborum, quorum eaedem erant postremae duae litterae quae sunt in* optumus, *postremam litteram detrahebant, nisi vocalis insequebatur. ita non erat ea offensio in versibus quam nunc fugiunt poetae novi. ita enim loquebamur* qui est omnibu' princeps *non* omnibus princeps *et* vita illa dignu' locoque *non* dignus. This suppression of *s* is common in Lucr. and is not avoided by Cicero himself in his verses: in all the older poets Ennius Lucilius etc. it is of course very frequent. Prob. Cic. includes Catullus among the *poetae novi*; though he has one instance of the licence in the last v. of his poems, *tu dabi' supplicium*: our mss. with one doubtful exception always write the *s*: Lamb. first suppressed it: it is not at all certain that the ancients did not write it; and perhaps Cicero means *loquebamur* to contrast with *scribebamus*. Lucretius' frequent employment of this archaism, after it had been generally dropt, may be one of the reasons which made Cicero deny him *ars*, if he indeed did deny it

him: see introduction p. 108. 187 probably he meant the rhythm to be an echo of the sense. *arbusta*: as *arbores* cannot come into the verse, Lucr. always uses for it *arbusta* in the nom. and acc.: but as *arboribus* is suitable enough and often used, in the only instance of *arbustis* v 1378 the word has apparently its ordinary meaning of plantations of trees. 188 *quando* in the sense of *quoniam* or *quandoquidem* and always governing an indic. is common in Lucr. and the older writers: Madv. de fin. p. 649 allows it also in Cicero: it occurs below in 206. 191 *grandescere* used twice again by Lucr. and by Cic. Arat. prognost. fragm. 5.

192 *Huc accedit uti*, a prosaic but very common phrase in Lucr.: also *h. ac. item quod.* 197 he several times repeats this comparison of the elements of words with the elements of things, led to it doubtless by the common name. It is a favourite and natural artifice of his to give colour to his arguments on abstruse matters by illustrations from things visible or intelligible to all: to this we shall often have occasion to draw attention. 200 *per vada*: the deep sea being but a ford to them. 202 perhaps one of the 3 cases where *saecla* in Lucr. has its ordinary sense; the other two being III 948 and 1090: see n. to 20 *saecla*: so that *vit. saecla* here means the number of years over which a life, probably a human life, extends: comp. Virgil's imitation in georg. II 295 *Multa virum volvens durando saecula vincit*; and Aen. XI 160 *vivendo vici mea fata*: in all these cases the alliteration has influenced the phrase. 207 *Aeris..auras* and *aeriae aurae* are very favourite pleonasms for *aer* in Lucr. *teneras*: II 146 *Aera per tenerum*: the air has the same epithet in Ennius Virgil and Ovid: it implies what is soft yielding elastic: comp. Ov. trist. III 8 7 *tenera nostris cedente volatibus aura* and Cic. de or. III 176 *nihil est enim tam tenerum neque tam flexibile neque quod tam facile sequatur quocumque ducas, quam oratio*, where it has the same force; as also orator 52: de nat. deor. II 65 he translates by *aethera, Qui tenero terram circumiectu amplectitur* the αἰθέρα, καὶ γῆν πέριξ ἔχονθ' ὑγραῖς ἐν ἀγκάλαις of Euripides. 209 *manibus* is [redacted] the abl. instr. by manual labour, = II 1165 *manuum labores*. *mel. red. fet.* comp. Cic. de orat. II 131 *quo meliores fetus possit et grandiores edere* (*ager*): *reddere* is regularly used in this sense. *fetus* with one exception always in Lucr. means the produce of the earth or trees. 210 *videlicet* has here the construction of *videre licet*: so II 469 *Scilicet esse globosa*: Forc. will give other instances from other authors s. vv.: on the other hand Lucr. II 809 *Scire licet..putandum est*, gives *scire licet* the constr. of *scilicet*. 211 212 repeated with slight change v 210 211. *cimus* only occurs in these two places, *ciere* being the com. form: III 303 *percit*; VI 410 *concit*. 213 214 if there were no first-beginnings, things might be much worse or much better quite independently of our control.

215—264: nothing can be reduced to nothing: things dissolve only into their first-beginnings: if this were not so, a thing might pass away in a moment without any force: again how could all things, animate and inanimate, be replenished? if nothing were imperishable, infinite time past must have reduced all things to nothing: a mere touch would destroy all things alike: rains pass away; but the earth which receives them sends forth her produce; and from it all animals are nourished: nothing therefore is utterly destroyed. 216 Epic. after what is quoted to 159, continues καὶ εἰ ἐφθείρετο δὲ τὸ ἀφανιζόμενον εἰς τὸ μὴ ὄν, πάντ' ἂν ἀπολώλει τὰ πράγματα, οὐκ ὄντων τῶν εἰς ἃ διελύετο. *dissoluat*: as in 3 places, I 559 III 706 VI 446, this word must be of 4 syllables from the necessity of the metre, Lucr. never ending a verse with 3 spondees, I have followed Lach. in always so regarding it in those places also where it might be a trisyll. as here for instance; though it is of course a doubtful point. *interemat* and 226 *peremit*: A and B, as all good mss. of all good authors, invariably thus spell these words. 217 *Nam*, 219 *enim*: Lucr. does not at all avoid thus using *nam*, *enim*; *nam*, *nam*; *enim*, *enim*, and the like in consecutive sentences, as the Greeks use γάρ: occasionally we find them in three successive clauses: II 749 *enim*, 751 *enim*, 753 *Nam*; III 754 *enim*, 756 *enim*, 757 *enim*; V 7 *Nam*, 13 *enim*, 14 *Namque*. 221 *Quod nunc*: see n. to 169 and also to 623. *aet. const. sem.*: Madv. Cic. de fin. p. 517 says that Cic. never has the simple abl. after *consto* but always *ex*: in Lucr. the former is very frequent; more so than the latter: he also employs both constructions with *consisto*. 222 *Donec vis obiit*=exactly 246 *dum.. Vis obeat*: *donec* and *donique* (the words are not found in Cicero) always, unless I am mistaken, in Lucr. take a past indic. with the exception of IV 997 *Donec .. redeant*; and this is the usual constr. at least in the older writers. 224 *videri* here has the force of *esse*, which φαίνεσθαι so often has in Greek: 262 it has its usual sense of to seem, and 270 it is a simple passive of *video*: Lucr. uses homonymes in this way again and again without its appearing to strike him that there can be any ambiguity: we find for instance in the same or in contiguous vss. *corpora* in its ordinary sense and in that of atoms; as II 714 *multaque caecis Corporibus fugiunt e corpore*: *res* and *ratio* are likewise found with quite different meanings. 227 *lumina vitae* occurs again more than once; it is also used by Virgil. 228 *Redducit* always has this quantity in Lucr. and generally this spelling in A B: the same is true of *reccidere* which occurs thrice, *redducere* occurring four times: the perf. *reppuli repperi rettuli* are of course necessarily long. 230 *ingenuei* is almost *sui*: comp. VI 613 *Adde suos fontis* of the sea: Plaut. miles 632 unites *sua sibi ingenua indoles*, i.e. nativa. *externa* is the opposite of this, 'which come from without', *adventicia*: comp. Cic. de nat. deor. II 26 *Nec enim ille externus et ad-*

venticius habendus est tepor, sed ex intimis maris partibus agitatione excitatus. It would agree better with what precedes and follows, as well as with *ingenuei* and *externa*, and II 590 *Unde mare inmensum.. fontes.. renovent*, if *marei* could be read: 'are supplied to the sea'. Creech indeed, and even Bentl. and Bern. take the acc. *mare* in this sense: but surely Lucr. and every good writer admit an acc. after *supp.* only of the thing which is given; never of the thing to which it is given. It would be a smaller departure from the mss. to read *marei ingenuei* and *longo*; and IV 741 *equi atque* makes the elision possible: the position of *longo* would then be emphatic, 'throughout its whole extent'. 231 *aeth. sid. pas.*: comp. V 524, which mentions this as one of several possible cases; though it seems rather stoical than epicurean: comp. too Virg. Aen. I 608 *polus dum sidera pascet.*

233 *consumpse*: *sumpse* seems to occur in Naevius triphallus, fragm. comic. 97: Lucr. III 650 has *abstraxe*, V 1159 *protraxe*; Virgil *traxe*, Horace *surrexe*, Catullus *promisse*; many others, *dixe* and the like, are found in Plautus: *cognosse remosse cresse* in Lucr. are simpler contractions like *nosse*: I 987 *confluxet*: comp. *vixet extinxem* in Virgil, *erepsemus* in Horace; the abundance of such forms in Plautus and the general use of *faxo ausim* shew that they belonged to the language of common life. *dixti* is found even in Cicero: see Madv. de fin. p. 153. *diesque*, a poetical tautology: see n. to 557: the argument too of this v. is there more fully enforced. 235 *haec rerum summa* i.e. the whole *mundus*: after his wont he has just enumerated what goes on in the three portions, earth sea heaven: on *rerum summa* see n. to 1008. 240 *indupedita* of course agrees with *materies*: comp. 244. Lamb. here errs as well as Wak. 241 Madv. Cic. de fin. p. 285 says that *satis esset causa leti* = letum satis efficeret, and that the gen. *leti* makes a difference: in the passage of Cicero he and Baiter in his new ed. read *satis est tibi in te...praesidii* for *praesidium*. Yet in several passages *satis* seems to have the force of an adjective: auctor ad Heren. at beg. *vix satis otium studio suppeditare possumus*, where Madvig would read *otii*; ad Att. XII 50 *si satis consilium quadam de re haberem*, where Lamb. reads *consilii*. He also refers to Ovid met. III 149 *Fortunamque dies habuit satis* and Virg. Aen. XI 366 *sat funera fusi Vidimus.* Comp. also Aen. VII 470 *Se satis ambobus...venire.* 245 *constant* = sunt, as so often in Lucr. 249 *corp. mat.* another term for his first-beginnings. 250 *pereunt*: the rains perish as rains; yet 262 *haud penitus pereunt*; but reappear in other shapes. Comp. Virg. georg. II 325 *Tum pater omnipotens fecundis imbribus aether Coniugis in gremium laetae descendit et omnis Magnus alit magno commixtus corpore fetus*: see notes to parallel passage II 991 foll. and V 318 foll. From the Vedas to the pervigilium Veneris poets and philosophers love to celebrate this union of ether and

earth, ether as the father descending in showers into the lap of mother earth. The notion naturally had birth in warm climates, such as India, where the excessive heat at stated periods seemed to bring the ether down in abundant rains which at once quickened all things: hence the Agni of the Rig-Veda cooperating with the mighty parents heaven and earth to shed abundant showers. This notion too has induced Lucr. here and elsewhere, where he speaks of *aetheriae nubes* and the like, to forget or suppress for a moment his calm cloudless unsullied ether, and confound it with this upper generator of heat and rain: the *semper innubilus aether* of III seems in VI *omnis in imbrem vertier.*

252 *nitidae fruges* occurs five times: it seems to imply crops well-kept and so flourishing and good-looking: Cic. Verr. III 47 says *Quos ego campos antea collesque nitidissimos viridissimosque vidissem, hos ita vastatos nunc ac desertos videbam, ut*; Virg. georg. I 153 *interque nitentia culta. fruges* in Lucr. signifies grain-crops alone or includes only leguminous products in contradistinction to fruits of trees etc. 253 Wakefield well observes that Virg. ecl. X 54 *Arboribus: crescent illae, crescetis amores*, imitates the language and rhythm of this verse, while the sense is quite different. Comp. also with II 2, georg. I 158 *magnum alterius frustra spectabis acervum*; with II 32 and V 1395, georg. II 310 *Praesertim si tempestas*; with II 408 *et mala tactu*, georg. III 416 *aut mala tactu*; with III 232 *Tenuis enim quaedam...aura* and the various uses of *perlabitur* in Lucr., Aen. VII 646 *Ad nos vix tenuis famae perlabitur aura*; with IV 1065, georg. I 114 *Conlectum umorem*; VI 458 with geor. III 478 *coorta est Tempestas*: in each case the words are the same, the meaning is altogether dissimilar. Comp. also Aen. XII 906 *vacuum per inane* said of the air; though Lucr. once, II 116, uses *per inane* himself in the same way. Such instances shew how strongly this poem must have impressed itself on Virgil's mind. 256 *canere* = cantu resonare. Forc. and his followers cite but one instance at all similar, from the Aetna 295: comp. however Virg. georg. II 328 *resonant avibus virgulta canoris.* 257 *pingui* used as a subst. by Virg. geor. III 124 *denso pingui*; as well as catal. VII 4 *Scholasticorum natio madens pingui*: it often occurs in Pliny nat. hist. 258 *Corp. dep.*: Bentl. says 'scil. cum parturiunt': can he mean that *corpora* are the young of the cattle; as he reads in 257 *fetae*? of course Lucr. means merely what Virg. Aen. VII 108 does, *Corpora sub ramis deponunt*, or Hor. od. II 7 18 *fessum militia latus Depone. can. lac. um.*: the two epithets are quite regular, as *lac. um.* = simply *lac* or *lactis umor*, and *candens* is an epith. ornans, as in γάλα λευκόν: comp. I 945 and IV 20 *suaviloquenti Carmine Pierio...Et quasi musaeo dulci...melle*; V 1194 *O genus infelix humanum*; VI 387 *fulgentia caelestia templa*; and see Wagner to Aen. VII 24, where among other instances from Virgil he cites *toris genialibus altis*, *corpus exangue*

Hectoreum, sinusque crepantis Carbaseos: Lucr. is certainly not harsher than Virgil: comp. too II 342 *mutaeque natantes Squamigerum pecudes;* and see n. to V 13 *divina antiqua reperta*, where the instances are somewhat different. Lucr. is fond of this periphrastic use of *umor*: he has *umor aquae, aquai, aquarum, sudoris*, some of them repeatedly. 260 *Artubus*: this form is retained by our mss. in four other places: once only, V 1077, we find *artibus*: this is one out of many instances of their value in points of spelling: doubtless the *u* was retained longer in this than in other words, to distinguish it from the dat. and abl. of *ars*. 261 *perculsa*: see n. to 13. 262 *videntur* (perire). 263 *alid* Lucr. uses not unfrequently; *ali* the dat. sing. more than once, but *alis* never. 263 Lucr. is fond of this doctrine that the death of one thing is the birth of another and that the uniformity of nature is thereby maintained. We shall have to say more at II 70 of this theory as applied to the universe of things: as here applied to this world of ours it is hardly perhaps consistent with what is said 556, that the process of destruction is much quicker than that of construction. Elsewhere too he argues at great length and with much earnestness that this world is of quite recent formation, and again that it not only can but must and will be destroyed in a moment of time. What becomes then of this unvarying equality, at least thus unconditionally applied, *nec ullam Rem gigni* cet.? Lucr. doubtless had running in his thoughts the old dogma of the physici, more than once asserted by Aristotle, as metaph. II 2 p. 994 b 5 ἡ θατέρου φθορὰ θατέρου ἐστὶ γένεσις.

265—328: 'doubt not what I say of first-beginnings, because they are not seen: many things in being you know by their effects, yet cannot see: winds work mischief in sky, on earth, and sea; yet are not seen: they act by pressure just like rivers which are seen: smells heat cold sounds are not seen; yet have all body since they are in contact with sense: moisture leaves clothes without being seen: metals stones wear away; things grow, and decay, as rocks from sea-brine; yet the process of growth and decay is unseen in all'. 265 *Nunc age*, a not unfrequent formula in Lucr. by which he bids his reader to give heed, when he is passing to a new question: it is used more than once in the same way by Virgil, and often by Manilius: Cicero has *age nunc*: comp. too Empedocles 248 Karsten Νῦν δ' ἄγ' ὅπως...τῶνδε κλύε and 182 Εἰ δ' ἄγε, νῦν τοι ἐγὼ λέξω, and 101 Ἀλλ' ἄγε μύθων κλῦθι, and 124. 267 *coep. diff.* a periphrasis for *diffidas*. 270 *videri* = cerni: a sense very common in Lucr., not very unusual in Cicero; as de off. III 38 *ibi cum palam eius anuli ad palmam converterat, a nullo videbatur, ipse autem omnia videbat; idem rursus videbatur, cum in locum anulum inverterat*: ib. I 14 he translates the ἐναργές κ. τ. λ. of Plato by *si oculis cerneretur;* de fin. II 52 by *si videretur*. 271 *portus*: the wind beats against the ports and prevents all

ingress to ships. 272 *ruit* used 289 and 292 in same sense. Virg. georg. III 197 has *arida differt Nubila.* 274 *montis supremos* is found in Virg. georg. IV 460. 275 *Silvifragis*: 305 *fluctifrago*: Lucr. seems the only classic who uses these words, which are both active. Virgil is already much more niggardly than Lucr. in his use of such compounds: the tendency of the language was more and more to limit them, until barbarous writers like Tertullian forced it back in the contrary direction: comp. Quintil. inst. I 6 65—70 who states the limits within which it was allowable to form compounds in Latin: he naturally finds Pacuvius' *repandirostrum incurvicervicum* harsh; often pedantic in his preference of Greek, he may yet justly say 'cum κυρταύχενα mirati sumus, *incurvicervicum* vix a risu defendimus'. 275 *perf. Cum frem. saev. murm.* a striking tautology; unless indeed, as I sometimes think, the *pontus* of mss. can be defended, *saevit—pontus* being a clause apart and finishing the comparison in a way so often followed by Virgil; as geor. I 334 *Nunc nemora ingenti vento, nunc litora plangunt*, which may indeed be a reminiscence of Lucr. *cum fremitu* or *fremitu*, *murmure* or *cum murmure*, all equally Latin: IV 539 *cum summost clamore profusus*; but VI 147 *magno clamore trucidet*; 1284 *ingenti clamore locabant*: Enn. ann. 477 *Cum magno strepitu Volcanum ventu' vegebat*; Plaut. Amphitr. 244 *maximo Cum clamore involant.* 277 *nimirum* = *ne mirum* = *non mirum*: Donat. to Ter. eun. 508 'solve *nimirum* [a proof by the way that he wrote it as one word] et fac *non est mirum*...nam *ni ne* significat et *ne non.* *ni* pro *ne* Vergilius, *laeti discrimine parvo Ni teneant* [and Lucr. he might have added: see n. to II 734]. *ne* pro *non* Plautus, *ne vult* inquit pro *non vult*'. Lucr. is peculiarly fond of this word: he generally employs it in drawing what he thinks a certain conclusion from what precedes. *corp. caeca*, as 295: sometimes he applies the phrase to his invisible first-beginnings; as 328 *Corporibus caecis*, = 1110 *primordia caeca.* 278 *denique* often thus added to the last item in an enumeration without giving it any prominence over the others; as 435 *Augmine vel grandi vel parvo denique*, II 1081 *sic montivagum...Sic hominum...sic denique mutas Squamigerum* cet. IV 783 *Si mare, si terrast cordi, si denique caelum*; V 434 *Nec mare nec caelum nec denique terra neque aer.* 279 *Verrunt*, a favourite metaphor which he uses five times. 280 *Nec rat. alia...Et cum*: II 414 *Neu simili...cum...Et cum*; 418 *Neve...simili constare... qui...Et qui*; IV 544 *Nec simili...Cum...Et validis...Cum*; V 1073 *non differre...ubi...Et...Et cum*; 1081 *alias...voces...Et quom*; III 1092 *Nec minus ille...et ille*: in most of these cases the *et* of comparison is followed by *c* or *qu* or a vowel: see Haupt obs. crit. p. 36, who shews that Lucr. like Virg. never has *ac* before *c g* or *qu* with one exception VI 440 *simul ac gravidam*, as *simul ut* was not used by him: *simul ac* foll. by *c* is the sole exception to the rule in Catullus and Ovid: it is observed too by

Propertius and perhaps others. For this use of *et* in Cicero see Madv. de fin. p. 177. 281 foll.: there are three similes in the Iliad, Δ 452, E 87, Λ 492, each of which, especially the two last, Lucr. may here have had in his mind: *ποταμῷ πλήθοντι ἐοικὼς Χειμάρρῳ ὅστ' ὦκα ῥέων ἐκέδασσε γεφύρας· Τὸν δ' οὔτ' ἄρ τε γέφυραι ἐεργμέναι ἰσχανόωσιν, Οὔτ' ἄρα ἕρκεα ἴσχει ἀλωάων ἐριθήλεων Ἐλθόντ' ἐξαπίνης, ὅτ' ἐπιβρίσῃ Διὸς ὄμβρος* and *πλήθων ποταμὸς πεδίονδε κάτεισιν Χειμάρρους κατ' ὄρεσφιν ὀπαζόμενος Διὸς ὄμβρῳ, Πολλὰς δὲ δρῦς ἀζαλέας, πολλὰς δέ τε πεύκας Ἐσφέρεται.* Virg. Aen. XII 523 *ubi decursu rapido de montibus altis* cet. was thinking of 283; and so was Spenser faerie queene II 11 18 *Like a great waterflood that tombling low From the high mountains* etc. 281 Lamb. joins *mollis* with *aquae*, but I incline to think the usage of Lucr. requires it to agree rather with *natura*; as II 232 *corpus aquae naturaque tenvis Aeris*; V 148 *Tenvis enim natura deum*; II 646 *Omnis enim divom natura*, where see note. *natura aquae* = simply *aqua*; so *natura animi*, *deum*, and the like again and again. 284 *coniciens* is used in its first meaning also VI 731 *Nubila coniciunt in*; so *coniectus* the particip. more than once. 287 *Molibus* are of course the piers of the bridges; and *grandia saxa* in 289 are the stones of these and the other parts of the bridges swept away by the flood. 287 *validis cum viribus* occurs in Enn. ann. 301: Virg. Aen. V 368 has *vastis cum viribus*; Cic. Arat. 146 *funestum magnis cum viribus amnem* which Lucr. may have had in mind: 195 Cicero writes *validis viribus austrum* without *cum*. VI 73 *placida cum pace quietos*, 279 *ipse sua cum Mobilitate calescit* are like in principle; and VI 1233 *maesto cum corde iacebant*. Cicero in his Aratea quite revels in this use of *cum*: in the few hundred lines which remain I have counted 23 instances more or less similar to those quoted. 288 *dat stragem*: see n. to IV 41. *sub undis...volvit* is found in Aen. I 100. 289 *aqua* which is used above three times in this simile, is here in contrast to *venti quoque* of next verse. Lamb. Bentl. and Wagner lect. Verg. in Philologus suppl. I p. 366 in vain defend the ms. reading *qua quidquid*: Bentl. compares Ovid met. VIII 342 *spargitque canes ut quisque ruenti Obstat*; but there *quisque* is each of the particular dogs mentioned: here *aliquid*, not *quicque* or its synonyme *quicquid*, would be required; again mss. have *quidquid*, not *quicquid*: see n. to 23 *quicquam*. 291 *procumbit* is used of the wind in same sense VI 558. 293 Virg. Aen. VII 567 has *torto vertice torrens*, and Lucr. is purposely using terms common to rivers and winds. *vertice torto* and *rotanti turbine* seem to be the same thing; and the tautology is like that in 275. 296 *moribus*: Virg. georg. I 51 *Ventos et varium caeli praediscere morem*; which Pliny nat. hist. XVIII 206 thus expresses *quippe Vergilio iubente praedisci ventos ante omnia ac siderum mores.* 297 *aperto* the opposite to *caecus*.

300 *tuimur*: also *tuantur tuĕre* are found in Lucr. for *tueantur*

tuēre: comp. *cimus* above. 301 *Usur. oc.*: IV 975 *sensibus usurpare.* Plautus too has *neque oculis neque pedibus neque oculis usurpavi*: see Forc. 306 *eaedem*: *eādem* and *eodem* are found as dissyl. in Lucr. as well as *idem* (plur.) and *isdem.* *dispansae*: *dispessus* is also used by Lucr. *serescunt*: this passage is quoted by Nonius 175; and it seems to be the only known use of the word: *serenus* is clearly connected with it and Nonius adds 'inde Vergilius docte georg. I [461] *unde serenas Ventus agat nubes*', having just explained *serescit* by *siccatur.* 307 *umor umidus umecto* and *umerus* are rightly read in A B. 311—314 comp. Ov. ars I 473 *Ferreus adsiduo consumitur anulus usu. Interit adsidua vomer aduncus humo.* 312 *anulus*, not *ann.* *habendo* has not the same subject as the sentence: so Virg. georg. II 250 *lentescit habendo*: comp. also IV 1102 *Nec satiare queunt spectando corpora coram*; 1068 *Ulcus enim vivescit et inveterascit alendo*; and Virgil's imitation, georg. III 454 *alitur vitium vivitque tegendo.* V 1369 *indulgendo blandeque colendo* of the earth; Plaut. asin. 222 *Bene salutando consuescunt, compellando blanditer, Ausculando.* 313 *Stilicidi*: Lach. in a masterly note shews that when a long vowel is followed by *ll*, one *l* is withdrawn when an *i* follows, if this *i* be not merely the mark of a case, as *villa villis*: thus *Messalla Messalina*; *mille milia*; *villa vilicus*: *stilla stilicidium*; for *stiria* shews that the *i* of *stilla* is long. According to this rule *Polio* is right, and Servius recognises both *Polio* and *Pollio*, and Πωλίων is the usual Greek form; but Roman usage seems finally to have declared for *Pollio*; in the new corpus inscr. Lat. vol. I *Pollio* is found 6 times, *Polio* once; in Mommsen's inscr. reg. Neapol. always *Pollio*; and so the mss. of Virgil; but Pal. and Med. fail in the four places where his name occurs; *Pollio* too the collated mss. of Horace. 314 *occulte*: Forc. gives from Ovid an exactly similar use of the word. 315 *strata vi. Sax.*=stratas saxo vias: *strata* having the epithet *saxea* shews that Lucr. treated it almost as a subst.; even more harsh is VI 1283 *aliena rogorum extructa.* He uses this constr. more freely than most of the poets: see Prof. Conington to Aen. I 422: we had in 86 a very bold instance: *clausa domorum, extructa domorum*, and with a gen. sing. *vera viai, caerula caeli, sublima caeli* are some of many other examples. 316 foll. I find no other authorities for this custom which seems of course natural enough. 318 the meaning is by the touch of the great numbers who in passing kiss: the words rather imply 'of those who often kiss'; but it comes in the end to the same thing. 321 *praeclusit*: this verb he uses V 373 in its literal sense of shutting the door against: I confess Lachmann's *spatium* does not satisfy me; it is not time or room to see that nature refuses, but the physical power: the atoms which escape are far too small to be seen; so just below *Nulla potest oculorum acies contenta tueri.* I still think that *spem* would ex-

press better the poet's meaning. 324 Cic. de nat. deor. II 142 *acies ipsa qua cernimus, quae pupula vocatur. contenta* is well explained by IV 802 and 809. 325 is rightly joined by Lamb. with what follows: Lach. and Ed. in small ed. wrongly connected it with what precedes. 326 *mare quae inpendent*: comp. Ter. Phorm. 180 *tanta te inpendent mala*; Lucilius *quae res me inpendet*, where Festus p. 161 9 says *me* is for *mihi*. IV 568 *non auris incidit ipsas*; where see note: so V 608 *accidere* has an accus. 326 *vesco* denotes the small fine particles of spray; and a similar sense would suit every passage where the word occurs; as *vescas frondes, vescum papaver* in Virgil: see Conington to georg. III 175; and Ovid fasti III 446 *vescaque parva vocant*, a decisive authority. But Gellius XVI 5 6 perplexes the matter by deriving *vescus* from *ve* and *esca*, and makes it signify in Lucr. 'eating much', in Lucilius 'eating little': then too it would be active here, passive in Virgil, if with him it meant 'edible'. Probably mere similarity of sound had in Gellius' time confused the meaning of the word; and it is curious that the passages in Virgil and Lucr. and perhaps some others favour this ambiguity: Philargyrius too to georg. III 175 says 'Lucretius certe pro *edace* posuit'; but Pliny nat. hist. VII 81 is as decisive for 'little' as Ovid: *corpore vesco, sed eximiis viribus*: and Ovid and Pliny of course far outweigh Gellius and Philargyrius. 327 *possis*=precisely *potest* of 324: it is, as often, merely potential; so 808 *possint*, II 763 *possis*, 850 *Quoad licet ac possis*; where I now see Lach. to be wrong in reading *potis es*: so II 989 *queant*, V 210 *si non cimus,..nequeant*; 768 *si fulget,..Cur nequeat*; II 922 *Scilicet ut nequeant*, where Lach. after Bentl. reads *nequeunt*. 328 *Corp. caec.* see n. to 277. *gerit res*: the metaphor is taken from the government of a state: *res geruntur, geri res* and the like occur frequently in Lucr. always more or less with the same force: comp. Cic. de nat. deor. II 82 where the stoic Balbus says *nos cum dicimus natura constare administrarique mundum*.

329—369: but there is void as well as body in things; else there could be no motion, no birth, no growth: the hardest things can be penetrated; and therefore have void in them: again things of equal size are not all of equal weight, only because one contains more or less void than another. 329 the whole universe of things is not solid dense body; there is also void in things. *corporea natura*=corpore, as *animi natura, mundi natura* etc.=animus, mundus etc. *stipata* a favourite word to express what is close packed, pressed, rammed together: Wak. well compares συμπιλεῖσθαι used in the same sense by Aristot. phys. IV 9 near beg. 330 *in rebus* things in being, things formed, in contradistinction to the atoms: see n. to 419: Persius' parody I 1 *o quantum est in rebus inane* shews Lucretius' expression was in vulgar use: comp. also Pers. III 83 *gigni De nihilo nihil, in nihilum nil posse reverti*.

inane his most general term for void, used as a subst.; the τὸ κενόν of the Greeks: he also uses *vacuum, vacuum inane, inane vacansque* and the like: *spatium, omne quod est spatium, vacuum spatium, locus, locus ac spatium* and the like express space in its extension, wherein things are and through which atoms move=χώρα, τόπος: it is *intactile* or *manet intactum*; ἀναφὴς φύσις, as it is defined by Epicurus. 331 *Quod cognosse*=a nomin. subst. as shewn by *Nec sinet*: this use of the infin. is common in Lucr. as III 67, 354, 731; IV 765, 836 foll. 843 foll. V 979, 1118, 1250, 1297 foll. 1379, 1406, 1407, VI 380, 415, 416. Lucr. also uses the infin. for an accus. subst.: see n. to 418. 332 *quaerere*, as II 9 *viam palantis quaerere vitae*; and our 'to be to seek'. 333 *summa rerum*, properly the whole sum, universe of things in being, while *haec rerum summa* is this our single world, as explained in n. to 235; but comp. what I say at 1008 on *rer. sum.* where I attempt to account for the occasional ambiguity of this term: it is most important in Lucr. always to bear in mind what *res* means in such connexions. 336 *officium, Officere*: one of his favourite plays on words, united with alliteration *obstare..omni...Omnibus*; on which comp. what is said above p. 106: the words are simple homonymes, as in Cic. pro Sex. Rosc. 112 *cur mihi te offers ac meis commodis officio simulato officis et obstas.* 340 *subl. caeli*: see n. to 315. *sublima*: Enn. trag. 5 seems to have *sublimas*, and Attius *sublimo* and *sublimā*; Forc. quotes *sublima nebula* from Sallust frag.: Lucr. uses more than once the adv. *sublime*, but never the adj. *sublimis*: he has also *hilaro*, but not the other form of that adj. 341 *mul. mod. mul.* a favourite formula of his for the reasons mentioned in n. to 336. 343 *sollicito*, an epithet he thrice gives to *motus*: Virgil applies it to *mare*, Ovid to *ratis*. Lucr. uses the verb more than once in similar senses. *priv. car.* seems very tautological: comp. 275 and 293. 345 and he assumes the inherent motion of his atoms as the first requisite for the production of things. 346 *solidus* is his technical word for what is perfectly solid and impenetrable, that is his first-beginnings; in this sense no *res* can be *solida*; only apparently so: all *res* or things in being are *rarae*, that is have a mixture of void in them. 349 *flent*: Virg. georg. I 480 *inlacrimat templis ebur*; for which Seneca Thyestes 702 has *flevit in templis ebur*: but in Lucr. of course there is no secondary implying of real weeping. 352 *totas* agrees with *arbores* implied in *arbusta* which, as is observed to 187, he always uses for the former: quite similar is VI 188 *Quam sint lata magis quam sursum extructa*, referring to *nubibus*; and on the other hand 215 *eas*, though 214 *nubila caeli* is the immediate antecedent, not *nubes*: 757 *quadripedes...ut si sint mactata*; for which Lach. unskilfully reads *fit mactatu'*; and not unlike is IV 933 *aeriis auris...eius*, where see note. 355 *rigidum* seems to personify cold as if it were stiff like

frost. 356 *qua*: III 498 *Qua quasi consuerunt*; Virg. geor. I 90 *vias et, Spiramenta, qua*; Aen. V 590 *Mille viis, qua*. 358 *alias aliis... res rebus*: he seeks by the collocation of the words to increase the force of the antithesis: comp. 816 *variis varias res rebus*; 876 *omnibus omnis Res..rebus*; II 1166 *tempora temporibus praesentia confert Praeteritis*, and VI 1085 *Ut cava conveniant plenis haec illius illa Huiusque*. 360 *glōmere*; but *glŏmerari glŏmerata glŏmeramen*; and Horace *Ut vinosa glŏmus*: Lach. in a note exhausting the subject gives many other instances of varying quantity; thus Lucr. etc. *cōturnices*, Ovid and Juvenal *cŏturnices*; Lucr. etc. *vīctus*, Hor. *vĭctis*; Lucr. *vācillo* and *vaccillo*. 363 *inanis* is of course the gen. of *inane*, as 365: comp. 517 *inane rerum* which most editors causelessly alter: *natura inanis* therefore is like *natura animi*, *aquae* etc. 367 *Dedicat* used by Lucr. three times and always in this sense: comp. *indicare*: it is synon. with *declarat* in 365: *Attius* 78 *te esse Alcmaeonis fratrem factis dedicat*. With these vv. comp. what Theophr. περὶ αἰσθησ. 61 says of Democritus, βαρὺ μὲν οὖν καὶ κοῦφον τῷ μεγέθει διαιρεῖ Δημόκριτος [in his ἄμικτα or atoms]. οὐ μὴν ἀλλ' ἔν γε τοῖς μικτοῖς κουφότερον ἂν εἶναι τὸ πλέον ἔχον κενόν, βαρύτερον δὲ τὸ ἔλαττον, and comp. the de caelo IV 2. 368 *Est* emphatic, 'exists.'

370—397: some falsely maintain that motion may take place thus: a fish for example advances, because the water it displaces goes into the space which it leaves. But without void how can water begin to give place, that the fish may begin to advance? Again two bodies in contact start asunder: there must be void between the two at all events until the air has filled this space: if you say the air condenses when the bodies are together, I assert that air cannot so condense; and if it could, it could not thus contract without void. 370 it is not easy to say whether *illud* is nom. to *possit* or accus. after *praecurrere*: whichever it be, the other is understood. *praecurrere*: the metaph. is obvious: to run before a thing, and so meet it by anticipation. 381 *priv. corp.* a constr. of which we have had above two instances, 111 and 138, and shall have many more. 383 *init. movendi*: *initum motus* occurs twice again, II 269 III 271. 384 *de* is explained 'after': perhaps it expresses 'at once from a state of': Faber quotes Plaut. most. 697 *Non bonust somnus de prandio* and Aen. II 662 *Iamque aderit multo Priami de sanguine Pyrrhus*: comp. also the phrase *diem de die differre*, and Cic. ad Att. XII 3 1 *velim scire hodiene statim de auctione, et (aut) quo die venias*. 385 *cita*=cito: comp. Plaut. Amph. 1115 *Citus e cunis exilit*: for other instances see Freund lex. s. v. 2. 386 *possidat* is this a ἅπαξ λεγόμενον? Lexicons give no other genuine instance of its use. 389 *prim. quem.* i.e. each part successively one after the other: comp. Cic. de nat. deor. I 77 *primum igitur quicque consideremus, quale sit*; and de invent. I 33 *ut et prima quaeque pars, ut exposita est in partitione,*

sic ordine transigatur et omnibus explicatis peroratum sit....et ad primam quamque partem primum accessit et omnibus absolutis finem dicendi fecit; and so v 291 *primum iactum fulgoris quemque perire*: also 264 *primum quicquid aquai*, 284 *primum quicquid fulgoris*, 304 *primum quicquid flammarum*, Lucretius loving the archaism *quicquid* for *quicque*, as has been said above. 392 *id fieri*, i.e. that the space left between the bodies continues to be filled with air without any void, because the air which so fills it was condensed between the bodies when they were close together: the subj. of course shewing it was the erroneous judgment of the thinker, as was *quia linquant* in 373. 392 *condenseat* and 395 *denserier*: Lucr. appears only to know the 2nd conjug.: see notes 1 to v 491. 396 *si iam posset*: see n. to 968. 397 *trahere* neut. as vi 1190 *nervi trahere*: but if the law there laid down by Lach. be true, as it would appear to be, the cases are not like; and *in se trahere* rather resembles 787 *inter se mutare*: see n. there. *part. cond. in un.* repeated iii 534 *ipsam se posse per artus Introsum trahere et partis conducere in unum*: i 650 *conductis partibus*.

398—417: much more might I say; but a keen intellect can now by itself pursue the question farther: if however you demur, I have such store of arguments in reserve, that our life will come to an end sooner than they. 398 Virg. ecl. ix 56 *Causando nostros in longum ducis amores*. 400 *possum*: comp. Virg. georg. i 176 *Possum multa tibi veterum praecepta referre*. 401 *conradere* is twice used in vi in its literal sense. 402 *sagaci*: see n. to 50: the metaph. is kept up in *vestigia* which furnish the scent; and the expressions naturally lead to the simile: comp. *sagax nasum* of Plautus, *nare sagaci* of Ennius. 404 *montivagae* agrees with *ferai*, as shewn by ii 597 and 1081. 405 *quietes*: I find no other instance of the word in this sense; but Cic. de off. i 103 and Sall. Cat. 15 use it in the plur. 406 *instit. vestigia*: so Virgil *insiste viam, insistere limen*; and Plaut. capt. 794 *omnes itinera insistant sua*: the constr. is common enough; for the quantity of *instit.* comp. iv 975 *destiterunt*, v 415 *Constiterunt*: he uses also *desierunt, exierunt, transtulerunt, dididerunt, excierunt, occiderunt, deciderunt, inciderunt, prodiderunt*; vi 4 *dederunt*, v 474 and elsewhere *fuĕrunt* which, like Virgil's *tulĕrunt*, shew that the quantity does not arise from the mere necessity of the metre. 409 *insinuare*: for syntax see n. to 116: v 73 the constr. is the same. 410 *pigraris*: this rare verb occurs twice in the fragments of Attius. 411 *de plano, e plano, ex aequo loco* are opposed to *pro tribunali* or *ex loco superiore*: Cicero several times uses *ex aequo loco* in this sense; and comp. Sueton. iii 33 *iudicesque aut e plano aut e quaesitoris tribunali..admonebat*: Brissonius de verb. signif. s. v. *planus* cites Paull. recep. sent. v 16 14 *custodiae non solum pro tribunali sed et de plano audiri possunt*: it implies therefore

an off-hand decision given anywhere in a simple case, in contradistinction to a more formal and deliberate judgment from the bench. Lucr. means to say that he needs no time for consideration; so sure is he of his case. There appears to be no authority for *de plano* in the sense of *plane*. 412 *e font. de pect.* in one sentence: comp. IV 694 *Ex alto quia vix emittitur ex re*; VI 1012 *ex elementis.. e ferro*; II 447 *In quo iam genere in primis*; IV 97; VI 721. Aen. VI 404 *Ad genitorem...descendit ad umbras.* 413 *meo diti de pect.* this use of the poss. pron. with an adj. seems an imitation of Ennius' antique manner, often imitated by Virgil, as *tuo cum flumine sancto* for instance: see n. to IV 394 *suo corpore claro.* Comp. Hor. epist. II 2 120 *Vemens et liquidus puroque simillimus amni Fundet opes Latiumque beabit divite lingua*; Hor. applying *dives* to the *lingua*, which is supplied by the *pectus*; the heart being the seat of the intellect according to Lucr. and most ancient philosophers: V 1 *pollenti pectore carmen Condere.* Wak. quotes Cic. de consul. suo 74 *Fuderunt claras fecundi pectoris artis. diti*: on the other hand V 1115 *Divitioris*: he nowhere else uses either form. 414 *tarda* surely agrees with *senectus.* 415 *vit. cl.*: this metaph. he twice repeats, III 396 *magis est animus vitai claustra coercens*; VI 1153 *vitai claustra lababant*: comp. too Cicero's words *cum ego claustra nobilitatis refregissem.* The words imply those bars and defences which have to be forced and broken open before body and soul can be severed and life destroyed.

418—448: all nature then consists of body, and void in which body moves: deny the existence of body, you take away the foundation on which rests all reasoning about abstruse things: without void no motion is possible as I have just shewn. There is no third nature distinct from these two: if a thing can touch or be touched, it is of the class of body; if it cannot, of void: neither sense nor reason can grasp any third class. 418 *repet. pertexere*: VI 936 *repetam commemorare* the same constr. In both cases the inf. is for the accus. He uses the inf. for a subst. in the nomin. often: see n. to 331: sometimes for the accus. as IV 245 *internoscere curat*; V 1186 *perfugium sibi habebant omnia divis Tradere*; VI 68 *remittis Dis indigna putare*; 1227 *quod ali dederat vitalis aeris auras Volvere in ore licere et caeli templa tueri*, where a second infin. depends on the first used as an accus. subst.: *repet.* then has precisely the force it has Ovid met. III 151 *Propositum repetamus opus*, and ars III 747 *Sed repetamus opus*: the metaph. in *pertexere* is obvious: VI 42 *inceptum pergam pertexere dictis.* 419 *igitur* is more than once put by Lucr. in the apodosis and has misled editors: IV 199—203 *si, quae...Quid quae sunt igitur*; 862—865 *quae quia sunt...His igitur rebus rarescit*: in both which passages Lach. has gone wrong; as the older editors have in the present one: comp. also IV 513—520 *Denique ut...Sic igitur ratio*; and V 260 *Ergo.* Sometimes too Lucr. places igitur late in the sentence;

II 678, where the partic. = a protasis, it is the 7th, 682 the 6th word: II 569 *itaque* comes 5th in the sentence, IV 705 4th: VI 1277 *enim* is the 9th word. 419 *per se* manifestly belongs to *ut est*, not to *constitit* with which Lach. joins it: *ut est* has no force alone, and the assertion would contradict Epicurus: comp. Cic. de nat. deor. II 82 *sunt autem qui omnia naturae nomine appellent, ut Epicurus qui ita dividit, omnium quae sint naturam esse corpora et inane quaeque his accidant*; in precise conformity with which Lucr. says 445 *tertia per se Nulla potest* cet: see too 422 440 and 459 *Tempus item per se non est* and 445 and 479: from all which it is clear Lucr. does not deny that 'accidents' are, but denies that they exist by themselves, *per se*. See too Epicurus' own words in Diog. Laert. X 68 *οὔθ' ὡς καθ' ἑαυτάς εἰσι φύσεις* [*τὰ σχήματα κ.τ.λ.*] *δοξαστέον*, and those cited at 445, which Lucr. almost translates.

419 *duabus In rebus*: 449 *duabus Rebus*: 503 *duarum rerum*: the only three cases, all too exactly similar, where Lucr. seems to depart from his ordinary use of the word *res* which occurs many hundred times in his poem. Elsewhere it has either one of its numerous abstract meanings; or denotes things in being opposed to the first-beginnings out of which things in being are formed. Here too it might be urged it has almost an abstract meaning, and denotes the general conception of body and void; which he expresses sometimes by *natura*. Lucr. might have employed the simple neut. of the adj. *his duobus*, and by long habit he seems to have looked on *his duabus rebus* as equivalent to that. A Greek poet could hardly have used *οὐσία* or the like; nor a modern 'entity' 'substance' or any such term, derived too in almost every instance from scholastic Latin. 420 what is the exact force of the perf. *Constitit*, which Lamb. and Creech will not tolerate? is it this: 'ever has been and remains grounded', or can it have that common force of the Greek *ἦν* 'is, as we have said'? *Const. in* seems to be used in the sense common enough in Cicero, as in philip. III 19 *cum in eo salus et vita optimi cuiusque...consisteret*; but this I believe to be the sole instance of such a use in Lucr. *corpora* has here its most extended sense: comp. 483: it includes all *corpus*, whether *corpora prima* or *res*: so Epic. himself in Plut. adv. Colot. 13 *τὴν τῶν ὄντων φύσιν σώματα εἶναι καὶ κενόν*. 422 *comm. sensus* signifies the universal feeling or sensation common to all alike, which serves as the basis on which all judgments are built up: comp. Epic. in Diog. Laert. X 39 *τὰ σώματα ὡς ἔστιν αὐτὴ ἡ αἴσθησις ἐπὶ πάντων μαρτυρεῖ, καθ' ἣν ἀναγκαῖον τὸ ἄδηλον τῷ λογισμῷ τεκμαίρεσθαι*. 423 *cui valebit* must = *cui firme habebitur: fundata* would require the abl. as Lamb. felt who tacitly wrote *quo*. 426 foll. Lucr. again closely follows Epic. l.l. 40 *εἰ μὴ ἦν ὃ κενὸν καὶ χώραν καὶ ἀναφῆ φύσιν ὀνομάζομεν, οὐκ ἂν εἶχε τὰ σώματα ὅπου ἦν οὐδὲ δι' οὗ ἐκινεῖτο, καθάπερ φαίνεται κινούμενα*. 427 *si nullum foret* = si non foret:

comp. Catul. VIII 14 *cum rogaberis nulla*, and *is nullus venit* and the like in Plautus and Terence. 429 comp. 370 foll.

430—480 doubtless he dwells at such length and with such emphasis on this argument, because the stoics taught that all states qualities virtues etc. were body: take among many passages what Chrysippus says in Plut. de repugn. stoic. 43 p. 1053 F *οὐδὲν ἄλλο τὰς ἕξεις πλὴν ἀέρας εἶναι, φησίν· ὑπὸ τούτων γὰρ συνέχεται τὰ σώματα· καὶ τοῦ ποιὸν ἕκαστον εἶναι τῶν ἕξει συνεχομένων αἴτιος ὁ συνέχων ἀήρ ἐστιν, ὃν σκληρότητα μὲν ἐν σιδήρῳ κ.τ.λ.* and Sen. epist. 117 7 *quod accidit alicui, utrum extra id cui accidit est, an in eo cui accidit? si in eo est cui accidit, tam corpus est quam illud cui accidit. nihil enim accidere sine tactu potest: quod tangit, corpus est. si extra est, posteaquam acciderat, recessit. quod recessit, motum habet. quod motum habet, corpus est.* 432 *tert. numero*: this redundant use of *numero* is sufficiently illustrated by Forc. s.v. 433 *debebit*: this verb Lucr. is peculiarly fond of: it denotes with him that which follows as a natural or, as here, a necessary consequence. 434 (435) *Augmine*, a word often used by Lucr. and only by him and his constant imitator Arnobius: so VI 614 *adaugmen*: *momen* too seems peculiar to him and his imitators, for *momentum*; he also uses *fragmina* more than once: *glomeramen frustramen vexamen clinamen* are other words which he alone of classical writers employs. *dum sit* i. e. dummodo sit. 436 *Corp. num.*: the lexicons cite from Cicero and Caesar *numerus vini, frumenti, olei* and the like: Cic. pro Cluent. 87 joins *numerus* and *summa*, as here: *cum ipsa pecunia...numero ac summa sua...ostendat. sequetur*: is the metaphor from an army or a crowd, or simply from a sum of figures? 437 *intactile*, another ἅπαξ λεγ. by which he translates the ἀναφής of Epicurus. 438 *meantem*, a favourite word of Lucr. in its proper sense of passing to and fro. 439 *vac. in.* a striking pleonasm often repeated; just below he has *inane vacansque*: 523 we find even *spatium vacuum inane*. 440 *faciet quid* used of course in the technical sense of the Greek ποιήσει τι: *fungi* peculiar to Lucr. both in the technical sense as here and 443, and in the common sense as III 168, 734, V 358, of πάσχειν. 441 *ipsum* on its part in contrast to *aliis agentibus*. 442 *erit ut possint* = simply poterunt: a very common periphrasis in Lucr.: so 620 *Nil erit ut distet* = nil distabit; III 715 *haut erit ut possint*: I find also *non est ut possis, est ut possit, est quoque uti possit, est ut percipiat, est ut videatur; non erat ut fieri posset*; V 715 *Est etiam quare possit*: *fit ut, fit uti* are still more common: he even ventures to say VI 727 *fit uti fiat* and 729 *fit uti fiant.* 443 Epic. in Diog. Laert. X 67 *τὸ κενὸν οὔτε ποιῆσαι οὔτε παθεῖν δύναται, ἀλλὰ κίνησιν μόνον δι' ἑαυτοῦ τοῖς σώμασι παρέχεται.* 445—450 comp. Epic. to Herod. in Diog. Laert. X 40 *παρὰ δὲ ταῦτα οὐθὲν ἐπινοηθῆναι δύναται οὔτε περιληπτῶς οὔτε ἀναλόγως τοῖς περιληπτοῖς, ὡς τὰ καθ' ὅλας φύσεις λαμβανόμενα καὶ μὴ ὡς τὰ τούτων συμπτώματα ἢ*

συμβεβηκότα λεγόμενα: the τὰ κ. ὅλ. φύσ. λαμ. = *omnis ut est per se natura* of 419; φύσεις being applied to body and void alike by the school of Democritus and Epicurus. 447 448 might be all expressed by οὔτ' αἰσθητὸν οὔτε νοητόν. 448 *apisci*: so VI 1235 *apisci contagia*, and V 808 *terram radicibus apti*.

449—482: all other things are either inseparable properties or accidents of matter or void: time also exists not by itself: from the things that go on follows the feeling of past present and future: the actions done at the siege of Troy for instance did not exist by themselves, but were mere accidents of the men there or the places there: without body and space nothing which there happened could have happened. 449 if *quaec. cluent* = sunt, after the common usage of Lucr., then *cetera* is understood, all except body and void; but perhaps it here means 'are said to be', *cluent (esse)*, by which he would chiefly refer to the stoics, who so greatly extended the notion of body and void. *coniuncta* and *eventa* appear to have been devised by Lucr. himself to distinguish the two kinds of συμβεβηκότα or *accidentia*, the καθ' αὑτά or *per se*, and those not so; the editors after Lamb. quote a passage of Porphyry and decide that *coniuncta* = συμβεβηκότα, *eventa* = συμπτώματα. The truth is that in the passage quoted above from Epicurus, as well as in 67 and 68 of the same letter συμβεβ. and συμπτ. are synonymes, denoting either kind of accident; just as Aristotle uses perpetually συμβεβηκός both for his καθ' αὑτὸ συμβ. and for the μὴ καθ' αὑτό: see last chap. of metaph. V; and Cicero in the passage cited to 419 uses *quaeque his accidant* for both kinds. Plut. de plac. phil. I 3 puts into Epicurus' mouth the words συμβεβηκέναι τοῖς σώμασιν τρία ταῦτα σχῆμα μέγεθος βάρος: I might cite many passages from Sextus of the quite indifferent use of the two terms: compare adv. math. X 221 which bears directly on what follows, τούτων τῶν συμβεβηκότων τὰ μέν ἐστιν ἀχώριστα τῶν οἷς συμβέβηκεν, τὰ δὲ χωρίζεσθαι τούτων πέφυκεν. ἀχώριστα μὲν οὖν ἐστὶ τῶν οἷς συμβέβηκεν ὥσπερ ἡ ἀντιτυπία μὲν τοῦ σώματος, εἶξις δὲ τοῦ κενοῦ. [454 might have been forged from this clause.]...οὐκ ἀχώριστα δέ ἐστι τῶν οἷς συμβέβηκεν καθάπερ ἡ κίνησις καὶ ἡ μονή. 452 *seque gregari*: 651 *disque supatis*: so *inque merentes, inque peditur, inque pediti* etc. *inque tueri, inque gravescunt, inque gredi; conque globata, conque gregantur, conque putrescunt, perque forare, proque voluta, praeterque meantum, praeter creditur ire, rareque facit, inter enim iectast, inter enim fugit, inter quasi rupta, inter enim saepit, inter quasi rumpere; perque plicatis; inter enim cursat*: even *inter quaecumque pretantur*, and *facit are*; though he does not rival Ennius' *cere comminuit brum*.

459 foll. here too Lucr. is combating Chrysippus and the porch who taught that time was not only ἀσώματον, but also like void καθ' αὑτό τι νοούμενον πρᾶγμα: see Sextus l. l. 218: in this perhaps more con-

sistent than Epicurus and Lucr. whose theory is somewhat dark; though on this most knotty question one may agree rather with St Austin: *si nemo ex me quaerat quid sit tempus, scio: si quaerenti explicare velim, nescio.* With these vv. should be comp. Epic. in Diog. Laert. x 72, or the fuller passage of Sextus l. l. 219 Ἐπίκουρος δὲ...τὸν χρόνον σύμπτωμα συμπτωμάτων εἶναι λέγει παρεπόμενον ἡμέραις τε καὶ νυξὶ καὶ ὥραις καὶ πάθεσι καὶ ἀπαθείαις καὶ κινήσεσι καὶ μοναῖς. πάντα γὰρ ταῦτα συμπτώματά ἐστι τισὶ συμβεβηκότα. Time therefore is an accident of accidents: Lucr. treats the question with reference to the accidents of body and void last mentioned by Sextus, viz. states of motion and states of rest. 461 *porro* is the connecting particle, *deinde* belongs to *sequatur*. 464 and 471 *Denique*: see n. to 17. 465 466 *dicunt* and *cogant* plainly refer to Chrysippus and the stoics who as we saw taught that accidents were bodily entities, time an immaterial entity: they doubtless therefore used the homonymes *esse*, *esse* to prove that as for instance the rape of Helen was, therefore the rape exists of itself, and the like. 466 *haec* the rape of Helen and the conquest of Troy. 469 as usual, to make his argument more vivid, he has taken a special case intelligible to all, the conquest of Troy; this illustration he continues: *Teucris* therefore takes the place of the generic *Corporis* of 482, *regionibus* of *loci*: notice too the *quodcumque erit actum* of a special past event, not *agetur*. 471 he seems here to pass from time, the accident of accidents, to the more general question of 449, that of accidents generally. 473 *conflatus* keeping up the metaphor of a fire blown into flame. 474 *Alex. Phrygio sub pec.*: II 501 *Thessalico concharum tacta colore*; v 24 *Nemeaeus magnus hiatus Ille leonis*. Wak. compares Aen. VIII 526 *Tyrrhenusque tubae clangor*: see there Gossrau: perhaps 119 *gentis Italas hominum* may be compared; but see n. there. 474 *gliscens* still the same metaphor. 475 *Clara* seems a play on the two meanings of famous in story, and bright in reference to the flames of war: comp. 639 *Clarus ob obscuram linguam*. 476 *durateus*, the ἵππου κόσμος Δουρατέου τὸν Ἐπειὸς ἐποίησεν σὺν Ἀθήνῃ, made more famous by the 'timber' horse of bronze in the acropolis, out of which peeped Menestheus Teucer and the sons of Theseus, whence Virg. Aen. II 262 probably got his Acamas. *Troiianis* is of course governed by *clam*: Lamb. Creech Wak. and others have strangely blundered here. *partu*: Aesch. Agam. 791 Ἀργεῖον δάκος Ἵππου νεοσσός. 477 *equos* our mss. this once: *ecus* or *ecum* three times: *equus* once, which Lucr. would scarcely have written, but well *equs*. 479 *constare* and *esse* are here perfectly synon. 480 *cluere* = esse. 481 *Sed magis* [*ita esse et ita cluere*] *ut*. 482 see n. to 469.

483—502: the first-beginnings are perfectly solid and indestructible: sense suggests no notion of this solidity: reason can alone prove it.

483 484 translated from Epic. in Diog. Laert. x 40 τῶν σωμάτων τὰ μέν ἐστι συγκρίσεις, τὰ δ' ἐξ ὧν αἱ συγκρίσεις πεποίηνται. 483 *corpora* in its most general sense, as 420 *nam corpora sunt et inane*: and as already observed he always uses the term quite indifferently for either *corpora prima* or *res*. 484 *concilio constant*: see n. to 221: Lucr. has either the simple abl. after *constare* in this sense, or adds *ex* or *de*: though Cicero appears never to omit the prepos. *ex*. 485 *Sed* means, though other *corpora* may, these may not. 486 *Stinguere* seems peculiar to Lucr. who uses it several times, and his frequent model Cicero in his Aratea: it seems synon. with *extinguere* and is used elsewhere by Lucr. for quenching fire or thirst. *demum*: however long the contest, they in the end prevail: ἄτομα καὶ ἀμετάβλητα, says Epicurus himself l. l. 489: so vi 228 *Transit enim validum fulmen per saepta domorum, Clamor ut ac voces*: *caeli fulmine* occurs v 1244. 492 *labef.* implies the breaking up of the whole inner structure of a thing by some greater force, esp. heat as here: iv 697 *igni conlabefacta*; Aen. viii 390 *Intravit calor et labefacta per ossa cucurrit.* *rigor*: Virg. georg. i 143 *Tum ferri rigor*; Manil. ii 780 *ferrique rigor.* 493 *glacies*, a bold but expressive metaphor to which I know no parallel. 494 *penetrale*: Virg. georg. i 93 *penetrabile frigus.* 496 *lymph. rore*: 771 *roremque liquoris*; 777 *cum rore*; iv 438 *rorem salis.* 499 *ades*: Cic. pro Sulla 33 *adestote omnes animis qui adestis corporibus.*

503—550: where void is, body is not: these first bodies therefore are solid and without void: things in being, all contain pure void enclosed by pure body: these first bodies then may continue, when the things are broken up: and void we have shewn must exist; it alternates then with body: these first bodies cannot be crushed split or broken up from within; they are therefore eternal: without this eternal matter all things would have come from nothing, and would have been reduced to nothing: first-beginnings therefore are of solid singleness. 506 *sibi* appears to be added merely to increase the force of *per se* and *puram* as in English we say 'in and for itself,' 'for and by itself'; this being a cardinal point in Epicurus' philosophy, the absolute distinctness of the atoms and void which alternate in everything in being, he puts the statement of this doctrine in a variety of shapes. The necessary result is the absolute hardness and impenetrability of his first-beginnings; and it is the absence of this perfect fulness and solidity in the elements of rival philosophers that he again and again most strongly inveighs against. 509 *qua, ea*: Caes. de bello civ. i 64 3 *ea transire flumen, qua traductus esset equitatus.* 511 *genitis in rebus*, to express more distinctly what *in rebus* alone expresses. 515 *solidum* in its technical sense of perfect impenetrability: see n. to 1018 *magnum*, and iv 63 *tenuis.* *relinques* in the sense of conceding occurs not unfrequently in

Lucr. as soon after 658 and 743. 517 as *inane* is so oft. a subst. in Lucr., surely *in. rer.* for 'the void of things in being' is not harsher than 363 *natura inanis* (gen.) and 365 *plus esse.. inanis.* 521 and 526 *corp. certa*: *certus* in Lucr. Cicero and the best writers sometimes approaches in meaning *quidam*, and our and the French *certain*; or rather to *certus quidam*: *corp. certa* here=precisely 675 *certissima corpora quaedam*: comp. also 812 *alimur nos Certis ab rebus, certis aliae atque aliae res*; and VI 783 *Arboribus certis.* 523 the *omne* or *omne quod est* consists of *spatium* or *omne quod est spatium* and *corpora* in its widest sense, as shewn at length later in this book: Wak. and others by placing the comma after *spatium* utterly pervert the argument. The whole of this paragraph is rather an attempt to state clearly and fully what he means by his assumption that his atoms are impenetrably solid and imperishable; the demonstration of this will come in the succeeding sections. 525 *naviter*: so Cic. ad fam. V 12 3 *eum bene et naviter oportet esse impudentem.* *omne* or *omne quod est* is of course nomin. to *extat.* 529: so II 539 *penitus penetrari.* *retexi*: so 243 *contextum* for their structure: one cannot tell whether *retexi* is gov. of *possunt* or *queunt*: Lachmann's punctuation assumes the latter. 530 *temptata labare*: 537 *temptata labascit*; II 967 *dolore Temptari*; V 345 *cum res tantis morbis tantisque periclis Temptarentur*: *temptare* is a proper term for being assailed by disease. 531 *supra paulo*: if he refer to 485 foll. that seems merely a part of the present argument: perhaps he alludes to 169—204. 532 *conlidi.. frangi=dissolvi extrinsecus icta*: *findi sec.=penetrata retexi*: 534 535 are exs. of 530. 533 *nec findi in bina secando*, the expression which comes nearest to the technical Greek name ἄτομα or ἄτομοι, a literal rendering of which Lucr. with poetical tact always avoids. 534 *manabile*, a word formed by him to express what 494 he called *penetrale*: *manare* is a favourite word of his in similar senses. 536 Lucr. always says *quo magis* or *quanto magis* or, as once VI 460, *quam quoque magis,—tam magis*: never *quam m., tam m.* 543 *supra*: 149 foll. 547 *reparandis*: this verb is often used by him in this poetical sense, to produce anew. With the above section may well be compared the words of Epicurus himself l. l. 41 ταῦτα δ' ἐστὶν ἄτομα καὶ ἀμετάβλητα, εἴπερ μὴ μέλλει πάντα εἰς τὸ μὴ ὂν φθαρήσεσθαι, ἀλλ' ἰσχύοντα ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων, πλήρη τὴν φύσιν ὄντα καὶ οὐκ ἔχοντα ὅπῃ ἢ ὅπως διαλυθήσεται: Plut. de plac. phil. I 3 p. 877 D gives a good definition of the atoms: Newton too would seem to have had Lucr. in mind when near the end of his optics, ed. Horsley IV 260, he wrote 'it seems probable to me that God in the beginning formed matter in solid massy hard impenetrable moveable particles, of such sizes and figures and with such other properties and in such proportion to space, as most conduced to the end for which

he formed them; and that these primitive particles being solids are incomparably harder than any porous bodies compounded of them, even so very hard as never to wear or break in pieces.' Farther on he speaks of 'particles of matter of several sizes and figures and in several proportions to space, and *perhaps of different densities and forces.*' His particles agree in every point with those of Lucr. except in the concluding words. It appears from a most interesting discussion in Edleston's correspondence of Newton and Cotes p. 75 foll. that Cotes objected to one of the corollaries of his principia, unless he altered the last clause just quoted from his optics. Upon which Newton thanks him for explaining his objection and adds a fourth corollary, *Si omnes omnium corporum particulae solidae sint eiusdem densitatis neque absque poris rarefieri possint, vacuum datur*, thus coming to a complete agreement with Lucr.

551—576: if these first bodies did not set a limit to the division of things, nothing could come into being; for as things are destroyed more quickly than renewed, infinite time to come could not restore what infinite time past had gone on breaking up: again with solid first bodies the existence of soft things can be explained by help of void: with soft first bodies the existence of hard things cannot be understood. 553 *redacta* used absolutely without *in* or *ad* or some other prepos. is very rare: comp. Ter. heaut. 945 *eius animum.. retundam, redigam, ut quo se vertat nesciat.* 555 *perv. ad auct.*: comp. II 1121 *Hic natura suis refrenat viribus auctum* and V 846. *perv. ad* or *in* 'to arrive at': so Cicero *pervadere in Italiam, in aures* and the like; but *pervadere animos* 'to pervade the minds'; and so Varro de ling. Lat. VII 14, cited by Lach. quotes Attius (Accius) *Pervade polum* cet. and explains *quare quod est* pervade polum *valet vade per polum.* 557 foll. an acute argument which may perhaps help to confute another of his theories in II. Comp. also the passage quoted from Newton in the next section. 557 the constr. is nowise clear: the simplest seems to be to suppose the clause a double one, *quod longa diei aetas,* [hoc est] *infinita aetas ant. temp.*: comp. 233 *Infinita aetas consumpse anteacta diesque*; from which Faber conjectures here *longa dies et*: comp. too Enn. ann. 401 *longinqua dies quod fecerit aetas.* 560 *relicuo*: this word, spelt sometimes *reliquus*, is always 4 syll. in Lucr. and the older writers, who refused to unite the last two syll.: the first is only lengthened by metrical necessity, as it is short in metres which admit that quantity, and was never lengthened after it became a trisyll. Many, Virgil Horace etc., avoid the word: see Lach. p. 305: if Manil. II 734 be not admitted, Persius Silius Statius Juvenal first used it as a trisyll.: comp. V 679 *Consequë*, the principle of which is the same. 564 comp. V 847 *Nec potuere cupitum aetatis tangere florem.* 566 *cum constant*: yet II 469 *Scilicet esse globosa tamen, cum squalida constent*; which is the ordinary usage. Lamb. an excel-

lent judge says 'ne quis semidoctus putet reponendum *cum constent*; illo enim modo potius loquebantur antiqui'; the *potius* clearly goes too far: yet Lucr. can use the indic. when, as here, you can translate 'when or while at the same time': comp. II 690 *Cum tamen..necesse est*; and see notes 1 to VI 130, which is essentially similar; comp. too VI 140 *cum tamen alta Arbusta..haurit*, where Lamb. again remarks '*cum* iunxit cum indicativo, quod M. Tullio et bonis scriptoribus usitatum est, tametsi secus existimet vulgus': the *tamen* would seem to make a difference. *possit reddi*=possit ratio reddi; answering precisely to 572 *Non poterit ratio reddi*: comp. II 179 and V 197 *aliisque ex rebus reddere multis* with III 258 *quo pacto..vigeant rationem reddere* and IV 572 *rationem reddere possis...quo pacto*. 571 *silices* denotes the hard blocks of volcanic basalt with which they paved their streets and roads; VI 683 of Aetna *silicum suffulta cavernis*. 572 *funditus..fundamenti*, like *penitus penetrari*, *apparet aperte* and the like. In illustration of 565—576 hear what Newton says in his optics p. 251 'all bodies seem to be composed of hard particles: for otherwise fluids would not congeal...Even the rays of light seem to be hard bodies...and therefore hardness may be reckoned the property of all uncompounded matter... Now if compound bodies are so very hard as we find some of them to be, and yet are very porous and consist of parts which are only laid together, the simple particles which are void of pores and were never yet divided must be much harder. For such hard particles being heaped together can scarce touch one another in more than a few points, and therefore must be separable by much less force than is requisite to break a solid particle whose parts touch in all the space between them without any pores or interstices to weaken their cohesion.'

577—598: again we do see things in being: they must have had first-beginnings: could then these first-beginnings, if soft, have withstood the blows of infinite time? the persistency too of specific marks in living creatures seems to prove an unchangeable matter at bottom. 578 *quaeque*: see notes 1. 579 *superare*=superesse, as 672 and 790 repeated II 751: in each case in the infin.: Virg. ecl. IX 27 *superet modo Mantua nobis*; Aen. III 339 *superatne?* 580 *clueant* again=sint. 582 *Discrepat...potuisse*: I know no other instance of this constr.: the infin. clause probably is the subject to *Discr.*: comp. n. to 331. 586 *foed. nat.* a favourite expression: so II 254 *fati foedera*; also *foedere* alone: so in Virgil *foedera* and *foedere*; and Manil. II 301, 340, 359, 379. 587 *sancitum* an almost unexampled form: the instances quoted from Cicero seem all to be changed to *sanctus* in the latest editions. 588 *quin constent*: Lucr. with the older writers always thus uses *quin* with a subj. when not followed by *etiam* or, as II 799, *ipso*: see Lach. 589 *variae*, a favourite epithet of *volucres*, meaning of course the dif-

ferent species: comp. v 825 *voluores variantibus formis*: so *variae pecudes, gentes, arbores, varii sonitus, colores, odores, mundi, conexus, varia tempora*, etc. 593 *revicta* = simply *victa*: v 409 *revictae* = perhaps *vicissim victae*. 594 foll. repeated from 75 foll. Hear again what Newton l. l. p. 260 says to illustrate this and the preceding section 557—564, 'while the particles continue entire, they may compose bodies of one and the same nature and texture in all ages; but should they wear away or break in pieces, the nature of things depending on them would be changed. Water and earth composed of old worn particles and fragments of particles would not be of the same nature and texture now with water and earth composed of entire particles in the beginning. And therefore that nature may be lasting, the changes of corporeal things are to be placed only in the various separations and new associations and motions of these permanent particles, compound bodies being apt to break not in the midst of solid particles, but where those particles are laid together and only touch in a few points.'

599—634: these first-beginnings have parts, but their parts are so small as not to admit of existence separate from the atom: the atom therefore has not been formed from a union of these parts, but they have existed in it unchangeably from eternity: such parts then are but one more proof that the first-beginnings are of everlasting singleness: again without such ultimate least things, the smallest and largest thing will alike consist of infinite parts, and thus will be equal: again if nature went in division beyond the atom, such least things as these parts of the atom could not have the qualities which birth-giving matter must have, weight motion power of striking and clashing and combining.—A passage necessarily obscure, because dealing with one of those questions which utterly elude the grasp of human reason. Epicurus building up his dogmatic system and hating all scepticism on first principles, determined that his atoms should have size shape weight, in his own words μέγεθος σχῆμα βάρος, and therefore extension. But if extension, then parts; and how can that which has parts be indivisible? This is the question which Lucr. here answers. That the atoms of Epicurus though extremely small were finite and had parts, abundant proof was given in Camb. journal of phil. I p. 28 foll. and 252 foll. Comp. Stob. ecl. I 10 14 εἴρηται δὲ ἄτομος, οὐχ ὅτι ἐστὶν ἐλαχίστη ἀλλ' ὅτι οὐ δύναται τμηθῆναι, ἀπαθὴς οὖσα καὶ ἀμέτοχος κενοῦ. Simplic. to Arist. phys. p. 216 a, a few lines from end, though he varies in his testimony about Democritus, says of Epicurus ἀμερῆ μὲν οὐχ ἡγεῖται, ἄτομα δὲ αὐτὰ διὰ τὴν ἀπάθειαν εἶναί φησι: see the journal l. l. for proof that Democritus and Leucippus held the same doctrine which they probably derived from the pythagoreans. Doubtless the epicureans long waged bitter war with the peripatetics who held the infinite divisibility of things: see

Alex. Aphrod. to Arist. met. p. 745 4 Bon. πολλὰς γὰρ εὐθύνας δέδωκεν ἡ τὰ ἄτομα μεγέθη εἰσάγουσα δόξα. Lucr. therefore seeks to maintain at the same time that cardinal point in the epicurean physics that atoms are impenetrable and indestructible, and yet possessed of weight shape and extension, and to shew how particles thus endowed are incapable of further division: atoms have parts, but these parts are *minima*, the ἐλάχιστα of Epicurus, not able to exist alone, abiding therefore in the atom from all eternity in unchangeable juxta-position.

599 *extr. quodque cac. Corp. ill.*=extremum cacumen, suum cuiusque, corporibus illis, since *cuiusque* could not be joined with *Corporis illius*: it resembles therefore 578 *quaeque...corpora rebus*; and seems to me to involve just the same principle as the use of *suus quisque* illustrated by Madvig de fin. p. 699 and Lach. to II 371: thus Cic. de fin. v 46 says *cuiusque partis naturae..sua quaeque vis sit*, the first *cuiusque* making it not possible for him to say *sua cuiusque vis*. 600 *Corporis* etc. is of course the atom: *corpora* or *corpora prima* we have already found to be among his commonest terms for his atoms: 483 *Corpora sunt porro partim primordia rerum*; and so Stobaeus l. l. and Plut. de plac. phil. I 3 p. 877 D say that Epicurus defined τὰς ἀρχὰς τῶν ὄντων σώματα λόγῳ θεωρητά κ.τ.λ.: *corpus* is thus used in the sing. in 606 *naturam corporis*, and II 484 *cuiusvis in brevitate Corporis*, and 490 *totius corporis eius*: though our present passage has been grievously misunderstood, the words added would seem to preclude any doubt, as well as the tenour of the whole passage: *illius qu. n. c. s. Iam nequeunt* he says; and so II 312 *Omnis enim longe nostris ab sensibus infra Primorum natura iacet; quapropter ubi* ipsa Cernere iam nequeas: the *iam* implying that when you arrive at the atom, it is already far below the ken of sense. With this passage must be compared 749 foll. where he is blaming those who refuse to admit a limit to the division of things, *Cum videamus id extremum cuiusque cacumen Esse quod ad sensus nostros minimum esse videtur, Conicere ut possis ex hoc, quae cernere non quis Extremum quod habent minimum consistere in illis*: then with this passage and the other must be compared Epicurus' own words in Diog. Laert. x 58 τό τ' ἐλάχιστον τὸ ἐν αἰσθήσει δεῖ κατανοεῖν ὅτι οὔτε τοιοῦτόν ἐστιν οἷον τὸ τὰς μεταβάσεις ἔχον οὔτε πάντως ἀνόμοιον, ἀλλ' ἔχον μέν τινα κοινότητα τῶν μεταβάντων διάληψιν δὲ μερῶν οὐκ ἔχον...ταύτῃ τῇ ἀναλογίᾳ νομιστέον καὶ τὸ ἐν τῇ ἀτόμῳ ἐλάχιστον κεχρῆσθαι· μικρότητι γὰρ ἐκεῖνο δῆλον ὡς διαφέρει τοῦ κατὰ τὴν αἴσθησιν θεωρουμένου, ἀναλογίᾳ δὲ τῇ αὐτῇ κέχρηται· ἐπείπερ καὶ ὅτι μέγεθος ἔχει ἡ ἄτομος κατὰ τὴν ἐνταῦθα ἀναλογίαν κατηγορήσαμεν, μικρόν τι μόνον, μακρὸν ἐκβάλλοντες. Epicurus and Lucr. are each comparing the ἐλάχιστον or *minimum* of an atom with the ἐλάχιστον or *minimum* in a visible thing. What is the *cacumen* of Lucr. in 599 and 749? Epicurus wrote περὶ τῆς ἐν τῇ ἀτόμῳ γωνίας, where he doubtless

treated of the present question: if then a visible thing has an angular form, the τὸ ἐν αἰσθήσει ἐλάχιστον or *cacumen* seems to be the apex of the angle, which before it vanishes, appears to sense to be without parts and the least conceivable, and not to belong to what is on one side more than to what is on its other side: if again the form be spherical, the *cacumen* would seem to be the outermost surface edge at any point, and so with other shapes. The same analogy Epicurus and Lucr. hold to exist in the extremely small, but yet extended atom: there seemed to them no reason why a *cacumen* or *minima pars* should part off to one side more than the other, and therefore it would remain in the atom in eternal equipoise. Epicurus in his intricate prose might have dwelt on this more fully than Lucr. could do in his verse: the poet therefore seems tacitly to assume it and to pass *in medias res;* and he was right in so doing. In the visible thing however the *cacumen seems* to be a *minimum*, in the atom it *is* a *minimum*, so small that nothing can be smaller and exist. From II 483 foll. it would appear that three of these *minimae partes* or *cacumina* were the fewest that could exist in an atom. 601 *id*, the *cacumen* of course: it has no parts, but is itself one of the parts of the atom, having no conceivable existence apart from the atom. 602 *minima*: in Lucr. this word, when it has a physical meaning, appears always to be, like Epicurus' ἐλάχιστον, a technical term for the smallest thing that can exist, or the smallest effect that can be produced; and in this sense occurs ten or eleven times in the poem: so Cic. de fin. I 20 *ne illud quidem physici credere aliquid esse minimum*, and V 78 *ea nos mala dicimus, sed exigua et paene minima.* 604 *alterius*, of the atom. *ipsum* is emphatic, 'in its very essence.' 605 *ex ordine*, having each so existed without possible shifting of position. 608 *unde* seems to have *in eo* i.e. *in corpore*, in the atom, for its antecedent. 609 *Sunt igitur*: parts of this sort are only a further proof that the atom is single and impenetrable. 611 not like *res*, formed from a union of such parts, but of everlasting singleness, because its parts cannot exist out of the atom. 612 *Sed magis* = potius: so II 97, 428, 814, 869, 1086, III 819, 982; Virg. ecl. I 11 *Non equidem invideo, miror magis*: Faber compares Catul. LXVIII 30 *Id, Mani, non est turpe, magis miserumst.* 613 *iam*, as 601, when you get to the atom, division stops. In illustration of the above argument of Lucr. I cannot refrain from quoting out of many the following sentences of a great philosopher, Henry More: immortality of the soul, preface 3 'I have taken the boldness to assert that matter consists of parts indiscerpible, understanding by indiscerpible parts particles that have indeed real extension, but so little that they cannot have less and be anything at all, and therefore cannot be actually divided:...the parts that constitute an indiscerpible particle are real, but divisible only intellectually, it being of

the very essence of whatever is, to have parts or extension in some measure or other; for to take away all extension is to reduce a thing only to a mathematical point, which is nothing else but pure negation or nonentity.' Ibid. I 6 5 'it is plain that one and the same thing, though intellectually divisible, may yet be really indiscerpible. And indeed it is not only possible, but it seems necessary that this should be true.' The mystery is as great today as it was in the age of Lucr. One of the latest and best teachers Birks, on matter and ether III 31, defines atoms as the dual particles of matter and ether combined inseparably which constitute the first or ultimate elements of all ponderable substance: these by their dynamical action produce the effects of Epicurus' statical atoms.

615 and 621 *parvissima* used apparently, because *minimum* is wanted to denote an absolute least thing: the word recurs III 199 and is quoted by Nonius from Varro: with this and what follows comp. Epicurus himself in Diog. Laer. x 43 *οὐδὲ γάρ, φησὶν ἐνδοτέρω, εἰς ἄπειρον ἡ τομὴ τυγχάνει, ἐπειδὴ αἱ ποιότητες μεταβάλλονται, εἰ μὴ μέλλει τις καὶ τοῖς μεγέθεσιν ἁπλῶς εἰς ἄπειρον αὐτὰς ἐκβάλλειν.* 617 *pars* seems = dimidia pars, understood from the context. 618 *praefiniet*: *prae* seems to express the getting before and so stopping: comp. *praecludo* and the like. 619 *rerum summam* is almost a play on words: it means the universe of things in being, and at the same time the largest thing conceivable in opposition to *minimam*: probably Lucretius hardly felt the ambiguity, as the phrase is one. *escit* is quoted by Gellius XX 1 25, *nec escit* for *non erit* and *escunt* by Cicero, from the XII tables: Enn. ann. 486 and Attius 266 have *superescit*. 620 *Nil erit ut dist.* = nil distabit: comp. n. to 442. 622 each will alike have infinite parts, and by the old paralogism would be equal, because all infinites are equal: precisely thus the Indian atomist, Kanadi, declared there would be no difference in size between a mustard seed and a mountain, a gnat and an elephant, each alike containing an infinity of particles: see Daubeny's atomic theory p. 8: Henry More too l. l. argues 'thus a grain of mustard seed would be as well infinitely extended as the whole matter of the universe, and a thousandth part of that grain as well as the grain itself.' Bentley in his Boyle lectures brandishes this weapon in the faces of the epicureans as Lucr. does against the peripatetics. Newton in his 2nd letter to him admirably refutes the fallacy, giving at the same time its clearest exposition. As we shall again encounter this fallacy in Lucr. I will cite a few lines: 'I conceive the paralogism lies in the position that all infinites are equal. The generality of mankind consider infinites no other ways than indefinitely: and in this sense they say all infinites are equal; though they would speak more truly if they should say they are neither equal nor unequal, nor have any certain difference or pro-

portion one to another. In this sense therefore no conclusions can be drawn from them about the equality proportions or differences of things, and they that attempt to do it usually fall into paralogisms. So when men argue against the infinite divisibility of magnitude by saying that if an inch may be divided into an infinite number of parts, the sum of those parts must be a foot; and therefore since all infinites are equal, those sums must be equal, that is, an inch equal to a foot; the falseness of the conclusion shews an error in the premises: and the error lies in the position that all infinites are equal.' 623 *Quod quoniam*: comp. 221 *Quod nunc...quia*; and Cic. de fin. I 67 *quod quia nullo modo...iucunditatem vitae tenere possumus...idcirco et hoc ipsum efficitur* cet. But in all those cases is *quod* the relative or the conjunction, and if the former, how does it differ thus used from the latter? from *quod si* for instance, if this again be not the relative? *Id quoque* in 655 is quite different: it = again too: see n. to 82 *quod contra*. 625 *ea*, the *minimae partes*. *iam*, as 601 and 613, when you are come to them. 626 *quae*, the same *minima*. 627 *Illa quoque*, those atoms too, of which the *minima* are parts. 627 *esse...fatendum*: on the omission of *est* comp. n. to 111. 628 if nature had gone in division beyond the atom, even to these absolutely least parts of the atom. 631 *part. aucta* = 625 *praedita part.*: so III 626 *Quinque...sensibus auctam*, imitated by Catullus LXIV 165 *quae nullis sensibus auctae*: V 723 *quaecumque est ignibus aucta*. 632 *habere* belongs of course to *possunt*, as well as *debet*. *ea quae*, all which properties the atoms have: they possess size shape weight, which enable them, as we shall see, to move, to clash, and join together; none of which functions those *minimae partes* destitute of all qualities, if existing alone could perform. 633 *conexus, conecto, conixus, conivere, conubium* in our mss. and all good mss. are always spelt with one *n*: there is no authority whatever for *nn*.

635—644: to maintain therefore with Heraclitus and his followers that fire is the element of all things is absurd.—Lucr. having now established his two great principles of an unchangeable matter and a void, before he proceeds at 921 to explain by them the nature of things, first in order to make their truth still more manifest, examines the elements of Heraclitus Empedocles Anaxagoras and other philosophers and shews their utter insufficiency. Of all these men he speaks with admiration or tolerance, except Heraclitus whom he assails with a certain passion and violence. Now that the star of the old Ephesian seems again in the ascendant, such an attack will not meet with much sympathy; the motive however is plain enough: in him he is combating the stoics, the bitter enemies of Epicurus, Heraclitus standing in the same relation to them that Democritus stands to Epicurus. This will appear from the fact that it is only from 690 to 704 that he addresses himself to Hera-

clitus; from 645 to 689 it is always 'they': *faciant, cernunt, amittunt* etc. Indeed 643 644 seem to shew, as we might expect, that he was not insensible to that style and those sayings which sound so grandly even now in the few fragments that have survived. One in the position of Lucr. could only see and criticise a rival philosopher from his own point of view: even Aristotle is taxed with thus dealing with Heraclitus. The πῦρ ἀείζωον φρόνιμον, the πάντα οἰακίζων κεραυνός, the *ignis sincerus et sine ullius materiae permixtione, ut putat Heraclitus*, would seem to Lucr. a mere outrage on nature and reason; and therefore he will have the heraclitean and stoical fire to be his own fire. 635 *Quapropter* has clear reference to what just precedes: simple fire as an element cannot have the properties which birth-giving matter must have, *conexus, pondera* etc.: this word alone would refute the monstrous corruptions, *ni* and *multis*, which Lamb. and all subsequent editors introduce in 628 and 631. 638 *dux* has the double meaning of leader in war, and chief of a sect: Hor. epist. I 1 13 *quo me duce, quo lare tuter*; Quintil. inst. V 13 59 *inter duos diversarum sectarum velut duces non mediocri contentione quaesitum*. 639 *Clarus*: a play on its double meaning, as 475 *Clara accendisset. Clarus ob obscuram* see: p. 107: for constr. comp. Hor. epist. II 2 32 *Clarus ob id factum*. ὁ σκοτεινός appears first in the de mundo 5 p. 396 b 20 attached to his name. Cic. de fin. II 15 *Heraclitus cognomento qui* σκοτεινός *perhibetur, quia de natura nimis obscure memoravit*; Sen. epist. 12 7 *Heraclitus cui cognomen fecit orationis obscuritas*. 639 *inanis*, i. e. Graios. 640 *Quamde*: Festus s. v. quotes this passage and two from Ennius: ann. 29 and 139. 641 *stolidi*: 1068 *Sed vanus stolidis*: in both cases with reference to the maintainers of stoical doctrines: he retorts upon them their own term of reproach. 642 *Inv. ver.*: Ter. heaut. 372 has *inversa verba*, where the meaning is as uncertain as here: Quintil. inst. VIII 6 44 ἀλληγορία, *quam* inversionem *interpretantur, aliud verbis aliud sensu ostendit, etiam interim contrarium*; and this sense admirably suits the extant fragments of Heraclitus. Cic. de orat. II 261 uses *immutata oratio* with this meaning, *inversio verborum* with that of our irony. The expression might apply equally well to words in a forced and unnatural position, and therefore obscure. 644 *fucata sonore* seems a very bold metaphor.

645—689: how could simple fire produce such a variety of things? it is of no use to condense or rarefy fire, if it always remains fire: nay they deny void without which even this condensing and rarefying is impossible. But if they say the fire is extinguished in the process, they make things come from nothing. The truth is there are certain first bodies which are not like fire nor any thing in being, but which produce fire and all other things alike by their varied shapes motions arrangements collisions. 645 foll. Heracl. frag. 41 Schl. πυρὸς ἀνταμείβεται

πάντα καὶ πῦρ ἁπάντων, ὥσπερ χρυσοῦ χρήματα καὶ χρημάτων χρυσός: and Themistius ap. Schleierm. p. 95 says in exact conformity with Lucr. Ἡράκλειτος τὸ πῦρ οἴεται μόνον στοιχεῖον καὶ ἐκ τούτου γεγονέναι τὸ πᾶν: the latest expositor however Brandis Gesch. d. Entwick. d. Gr. Phil. p. 67 says that this fire or warm exhalation of Heraclitus is that for which all things are exchanged, as wares for gold; but it changes itself as little into the things, as gold changes into these wares; and that later interpreters misapprehended him. However that be, Lucr. is here speaking of his followers, espec. the stoics, as remarked above. 648 *rarefieri* and *rarefacere*; always in Lucr. has ē: so *vacēfit putrēfactus expergēfactus*, all more than once: *confervēfacit*; *patēfecit* and *patēfiet* once, but oftener *patĕf.*; so *calĕfecit*, *cinĕfactus*; *liquēfit*, but *liquĕfacta*: so *labĕfactat* etc. *labĕfactus*, *tepĕfactus*, *timĕfactus*, *conlabĕfactus*, *conlabĕfiunt*: *facit are* is uncertain: *vidēlicet* always of course, though it is of the same nature; for the *rare*, *are*, *cine*, etc. = a neut. infin. generally of the 2nd conj.; the *e* was therefore originally long, the Latins having had a strong tendency to shorten final syllables. 649 *super* = insuper; as III 672, 901, V 763, VI 514: this sense is found in Virgil: Aen. I 29, II 71, VII 462, and I think V 697 *Implenturque super puppes*, and in Ovid, as met. XII 206 *Annuerat dederatque super, ne.* 653 *variantia* found also III 318 seems to occur only in Lucr. and to be used for *varietas* for metrical reasons: thus *aegror* for *aegritudo*, *maximitas* for *magnitudo*, *pestilitas* for *pestilentia*, *dispositura* for *dispositio*, *differitas* for *differentia*, *refutatus* for *refutatio*, *emissus* for *emissio*, *commutatus* for *commutatio*, *opinatus* for *opinatio*, *formatura* for *conformatio*, are confined to him, or to him and his constant imitator Arnobius: *satias* for *satietas* is more general, and *impete* for *impetu*; but Lucr. has also *impetis* and *impetibus*. 655 *Id quoque*: see n. to 623. I know no other instance of *id quoque* in this sense, 'here too', 'again': Plaut. miles 1158 *id nos ad te . . venimus* the meaning is different. *Quod genus* which is common in Lucr. appears to be not dissimliar. *faciant* 'assume': so III 878 *facit esse sui quiddam super* and IV 825; also II 485 *fac enim*, a common use. 658 *fugitant* with an inf. so IV 324 (299) *fugitant vitantque tueri*, and VI 1239. 659 *viai* belongs to *Ardua* also. 662 *raptim*, like other adverbs in *tim*, is a favourite of Lucr. occurring at least 5 times. 665 *potesse* is found II 225 and 1010: he also has *potis est*, *potissit*, and *pote* more than once. 666 *mutareque*: this annexing *que* to ĕ, which Virgil and Ovid appear wholly to avoid, is exceedingly common in Lucr. As Virgil and Ovid do not object to two or even three consecutive ĕ's, as in *sĕrĕrĕ tremere* and the like, why did they wholly shun *esseque esseve* or *essene*? The whole history of the language proves that ĕ was shorter than ă or ĭ; perhaps therefore the accent being thrown upon this ĕ by the enclitic made the

contrast between its shortness and its accentuation appear harsh: yet Cicero does not object to the junction. 667 *reparcent* = simply *parcent*, as 593 *revicta* = victa: Plaut. truc. II 4 25 *reparcis saviis* = vicissim parcis. 670 671 are thrice repeated in the poem, Lucr. intending thereby to lay stress on the doctrine involved: see the passage from Epicurus cited after 689. 670 *quodcumque* = *si quod* or *quoties aliquid*: then *hoc* has reference to the whole of this clause, this passing out of the fixed limits which held the thing in: it involves therefore the same doctrine as 76 so often repeated, *finita potestas denique cuique Quanam sit ratione atque alte terminus haerens:* things have certain bounds within which they may range and continue what they are; when this limit is passed they die and pass into another condition. The expression much resembles that of Epicharmus quoted by Diog. Laert. III 11 ὃ δὲ μεταλλάσσει κατὰ φύσιν κοὔποκ' ἐν ταὐτῷ μένει, Ἕτερον εἴη κα τόδ' ἤδη τοῦ παρεξεστακότος, though the thought is different. 672 *aliquit, quicquit, aliut* are not unfrequently met with in our mss.: in A oftener than B, once or twice in both: the *t* has naturally been retained where no ambiguity is occasioned, such as by *at, quot* for *ad, quod*.

675 *Nunc igitur*: see n. to 169. *certiss. corp. qu.*: see n. to 521. 677 *abitu aut aditu*: comp. 457 where the contrary is asserted of mere *eventa*. 680 *dec. ab.* = *abitu* of 677; *alia adtr.* = *aditu*: comp. 800 *demptis paucis* = *abitu*; *paucis tributis* = *aditu*. 683 *omnimodis* often used by Lucr. as an adv. = omnibus modis: *multimodis* too is used by him = multis modis: Cic. orator 153 *saepe brevitatis causa contrahebant ut ita dicerent* multi' modis, vas' argenteis cet.; so that *omnimodis* seems formed by Lucr. on a false analogy: there is no adj. *omnimodus* or *multimodus*, any more than *omnigenus*: *omnigenum* in Virgil is for *omnigenarum*: Lucr. uses *omne genus* like *id genus, quod genus*. 684 *quaedam corp.* = *certiss. cor. qu.* of 675 = *corpora certa* of 521: the atoms of course. 685 comp. 632—634. *ordo positura figurae*: these words repeated II 1021 come from Democritus: see Arist. metaph. VIII 2 p. 1042 b 11 Δημοκρίτῳ μὲν οὖν τρεῖς διαφορὰς ἔοικεν οἰομένῳ εἶναι· τὸ μὲν γὰρ ὑποκείμενον σῶμα τὴν ὕλην ἓν καὶ ταὐτόν, διαφέρειν δὲ ἢ ῥυσμῷ ὅ ἐστι σχῆμα, ἢ τροπῇ ὅ ἐστι θέσις, ἢ διαθιγῇ ὅ ἐστι τάξις. 686 *mutatoque* cet. i.e. *quaeque mut. ord.* cet.: see n. to 718. 687 *igni sim.*: IV 363 *paulum simulata*. Forc. cites Aen. III 349 and Cic. ad Att. IX 8 for the same sense. 688 *rei* gen. and dat. in Lucr. either two long syll. or one: *rĕi* is not found: so *ēi*: also *fidēi* not *fidĕi*. 689 *adiectu*: IV 673 *naris adiectus adoris Tangat*; V 566 *ignes lumina possunt Adicere*: the *ad* implies the reaching the object aimed at. With the whole argument of 665—689 should be compared Epicurus himself in Diog. Laert. X 54, τὰς ἀτόμους νομιστέον μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματι συμφυῆ ἐστί· ποιότης γὰρ πᾶσα μετα-

βάλλει, αἱ δ' ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδήπερ δεῖ τι ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὂν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος, ἀλλὰ κατὰ μεταθέσεις μὲν πολλῶν, τινῶν δὲ καὶ προσόδους καὶ ἀφόδους. ὅθεν ἀναγκαῖον τὰ μὴ μετατιθέμενα ἄφθαρτα εἶναι καὶ τὴν τοῦ μεταβάλλοντος φύσιν οὐκ ἔχοντα.

690—704: again why do the senses, as Heraclitus says, perceive fire truly, but nothing else? one might just as well deny the reality of fire and affirm that of all other things. **690** ***res, rem, rerum***: see n. to 813. **692** *perdelirum* appears to be a ἅπαξ λεγομ. **693** *contra s. ab s.*: comp. auctor ad. Heren. II 9 *communes loci sunt cum accusatoris tum defensoris ab testibus contra testes, abs quaestionibus contra quaestiones, ab argumentis contra argumenta, ab rumoribus contra rumores;* Quintil. inst. VII 2 31 *alii a propositione accusatoris contraque loci oriuntur. res contra repugnat* is found in III 353; and Cicero has the same construction. **696 697**: that Heraclitus taught that the senses could not truly discern things, is certain: comp. Arist. metaph. I 6 at beg. and the authorities quoted by Bernays heraclitea p. 30; and the hippocratean π. διαίτης as there emended by him, διὰ τούτων [τῶν αἰσθήσεων] γνῶσις ἀνθρώποισιν ἀγνωσίη: but in what sense Heraclitus affirmed the senses could perceive fire truly, is far from clear: one would have thought that the ξυνὸς λόγος alone could discern the πῦρ ἀείζωον, and that the material fire was as delusive as other things. Surely Lucr. cannot simply mean that, as Heraclitus held fire to be the sole element of things and the only real existence, therefore when sense perceived any other thing, it did not perceive it in its reality: when it perceived fire, it perceived real existence; without his having any expression of Heraclitus to warrant such a conclusion. Did Heraclitus teach that the everliving fire represented motion self-engendered which in a thousand ways, in the human body and through the whole of nature, produces heat or fire? comp. with this some late theories of the origin of caloric and the sun's heat: all things else are phases of motion thwarted and turned from its natural course; fire alone gives to sense some apprehension of this real fire and movement at the bottom of all things. **699** *Quo ref.*: comp. 424 *Haut erit occultis de rebus quo referentes Confirmare animi quicquam ratione queamus;* Hor. od. III 6 6 *Hinc omne principium, huc refer exitum*: it is a common meaning of the word in Cicero. **700** *qui*=quo, and refers of course to *quid*: on the infallibility of the senses, one of the foundations of Epicurus' philosophy, see IV 478—521. **701—704**: it is usual with Lucr. after going through some important exposition and giving the more general and recondite reasons, to finish by some short argument appealing simply to the common sense of men, or to what they see going on before their eyes: see 759—762, 915—920, 984 (998)—987 (1001). **703** *relinquat*: see n. to 515.

705—733: for these reasons all err alike who affirm that any one of the four so-called elements, fire air water earth, is the first-beginning of things; or any two of these; or all four, as Empedocles teaches, that famous poet and philosopher of the famous island of Sicily. 705 *Quapropter* connects what follows with what just precedes precisely as in 635: the things formed out of such elements as fire air etc. are as much elements as they are. 707 *principium*: see notes 1 to 834. 710 *rerum naturas*=simply *res*; as *natura animi*=*animus* and the like. *vertier*: Lucr. has nearly forty of these infinitives, many of them more than once. 715 *anima* is used for the element of air also v 236 *Aurarumque leves animae*; Enn. Epich. 3 *Aqua terra anima sol*, and Virg. ecl. vi 32: Lucr. has also v 1230 *ventorum animas*, vi 578 and 693 *animai turbida vis*, a sense not uncommon in the poets: Attius 11 *vela ventorum animae immittere*; Aen. viii 403 *Quantum ignes animaeque valent*; Hor. od. iv 12 2 *animae Thraciae*. *imbri* for water recurs more than once in Lucr.; 784, 785, vi 149: both Ennius and Virgil use it for sea-water: Empedocles too 128, 216, 286 has ὄμβρος for water generally. Arist. metaph. i 3 p. 984 at beg. enumerates several of these philosophers from Thales downwards; much longer lists are given by Sextus pyrrh. hypot. iii 30 foll.; adv. math. ix 360 foll.; and x 310 foll., this last passage occurring almost verbatim in the newly discovered work of Hippol. ref. om. haer. x 6 foll. Aristotle asserts that no one ever made earth his element of things; but Sextus begins the first two of the passages just cited by attributing this doctrine to Pherecydes of Syros. 716 *quorum* appears to be governed of *cum primis*, not *est*: comp. Cic. de orat. ii 224 *sapiens homo cum primis nostrae civitatis*. 717 *triq. terr. oris*, because it is the shape of its coasts that renders its lands triangular: Forc. cites Horace Quintilian Silius for this word applied to Sicily. *gessit*=tulit, produced: so *terra gerit fruges, malos platani* and the like: yet the notion may be 'bore in its womb,' as vi 790 *semina.. Quod permixta gerit tellus*. 718 *Quam*, 720 *Angustoque...a fin. eius*: comp. ii 87 *durissima quae sint.. neque quicquam a tergo ibus obstet*; iv 962 *Et quo.. studio.. Aut quibus in rebus.. Atque in ea ratione*: this change from the relat. to the demonstr. pron. is not unusual in Latin, though more common in Greek: Cic. orator 9 *quam intuens in eaque defixus*, and Brutus 258 *omnes tum fere qui nec extra urbem hanc vixerant nec eos aliqua barbaria domestica infuscaverat*: in many cases, perhaps in these passages of Cicero, the relat. could not be repeated: comp. Madv. to Cic. de fin. i 42 *quod ipsum nullam ad aliam rem, ad id autem res referuntur omnes*: Madvig opusc. ii p. 177, and Conington to Virg. geor. ii 208 and Aen. vi 101 give other examples of clauses appended to relative ones in divers ways: comp. 154 *Quorum operum...ac fieri* cet.; 684 *quorum...686 mutatoque* cet.; 848 foll. *simili quae praedita*

constant Natura...neque ab exitio res ulla refrenat; II 140 *in solis quae lumine cernere quimus Nec quibus id faciant plagis apparet aperte*; V 895 *Quae neque florescunt...neque sunt eadem iucunda*: the simpler cases such as those quoted by Conington l.l. where the succeeding clauses are 'in material, but not in formal connexion' with the relative clause, are exceedingly numerous in Lucr.: comp. 21 foll. 58 foll.: as indeed in all writers; the Latin idiom making them not easy to avoid. 720 *Ang. fretu* seems governed by *rapidum*, the sea is rendered rapid by the narrowness of the channel. *fretu*: Gell. XIII 21 15 quotes Cic. Verr. V 169 *perangusto fretu divisa* of this same strait: Charisius I p. 129 7 Keil quotes from Messalla *angustiae fretus*, from Cicero *a Gaditano fretu*, from Augustus to Antonius *fretu cessi*: Cic. pro Sestio 18 Halm restores *fretu* from Pl. Lucr. VI 364 has *fretus* nom. 722 *vasta Char.* is found in Catullus and Virgil: *vasta* implies that in which nothing lives. *minantur...se coll*: Plaut. asinar. 604 *ab hac minatur sese abire*. 723 foll. observe *rursum, iterum, rursum*. 724 *Faucibus*: VI 701 *crateres, ut ipsi Nominitant; nos quod fauces perhibemus et ora*. *eruptos ignes*: so V 598 *erumpere lumen*; VI 583 *erumpitur*; Cic. Arat. 111 *erumpit flatibus ignes*: IV 1115 *se erupit*: *prorumpitur* is also found in Lucr.: but these verbs are often active; see Forc. 726 the constr. is *quae, magna, videtur multis modis miranda*. *cum.. videtur*: see n. to 566. 727 *visenda* used in this sense by Cic. Verr. IV 132 and 135. 728 Wak. cites Aen. I 271 *Longam multa vi muniet Albam*; but the sense differs: *munita* is here metaphorical. 730 *carum* seems to mean precious, τίμιον; though I know no parallel. 731 *pectoris* the seat of the heart and intellect, and therefore of poetical genius: comp. V 1 *pollenti pectore carmen Condere*. 732 it is not easy to say whether *vociferantur* is neut. as II 1050 *res ipsaque per se Vociferatur*; or act. as III 14 *ratio tua coepit vociferari Naturam rerum*: both constr. are found in Cicero too.

733 Lucr. may have been thinking of what Empedocles says of himself 392 ἐγὼ δ' ὔμμιν θεὸς ἄμβροτος οὐκέτι θνητὸς πωλεῦμαι μετὰ πᾶσι τετιμένος, ὥσπερ ἔοικε. He no doubt looked upon Empedocles' poem περὶ φύσεως as in some sense his poetical model, and therefore thought he owed him a debt of gratitude. With many differences there were also many points of resemblance between their two systems; this especially that the first-beginnings of each were imperishable, and that life and death were but the passing to and fro of elements into things, and things into elements. All this being considered, we may grant that his lofty panegyric is justified by the large fragments we possess of Empedocles' chief poem, nearly 400 out of 2000 verses: yet the *vociferantur* cet. stands in striking contrast to Aristotle's ἃ ψελλίζεται λέγων Ἐμπεδοκλῆς: but that stern judge is alluding to the imperfect utterance of

the first philosophy yet in its infancy, as may be seen a few pages later in the last chap of metaph. I; and we learn from Diog. Laert. VIII 57 that Aristotle recognised his poetical genius, ἐν δὲ τῷ περὶ ποιητῶν φησιν ὅτι καὶ Ὁμηρικὸς ὁ Ἐμπεδοκλῆς καὶ δεινὸς περὶ τὴν φράσιν γέγονε, μεταφορικός τ' ὢν καὶ τοῖς ἄλλοις τοῖς περὶ ποιητικὴν ἐπιτεύγμασι χρώμενος.

734—762: he and the others have given responses truer than those of Phoebus; yet all alike have gone to wreck on the first-beginnings of things: they deny a void in things, yet give them motion and leave them soft and rare; and they set no limit to the division of things: if first-beginnings are soft, they were born and will die; all things therefore have come from and will return to nothing: again such elements are hostile one to the other; and thus, like lightning clouds winds, will be apt to fly asunder one from the other rather than combine. 734 *supra*, 705 foll.: *quos diximus*, Thales Pherecydes Anaximenes Diogenes of Apollonia Hippasus Xenophanes Oenopides Hippo of Rhegium Onomacritus Idaeus of Himera Archelaus and the rest. 735 *egregie* from its place seems to go with *multis*: IV 342 *multis partibus hic est Mobilior multisque minutior*; Caes. de bel. civ. III 84 *numero multis partibus esset inferior*: Cicero uses *omnibus partibus* with much the same force, which *egregie multis* has here: see Madv. de fin. p. 328. 737 *adyto cordis* of course with reference to the illustration which follows: Ov. met. XV 145 *augustae reserabo oracula mentis.* 738 Lucr. was prob. thinking of Callim. in Del. 94 where Apollo says Ἀλλ' ἔμπης ἐρέω τι τορώτερον ἢ ἀπὸ δάφνης. 739: Aristoph. Plut. 39 τί δῆτα Φοῖβος ἔλακεν ἐκ τῶν στεμμάτων, taken with Eur. Or. 321 τρίποδος ἄπο φάτιν, ἂν ὁ Φοῖβος ἔλακεν ἔλακε and Iph. Taur. 951 Ἐντεῦθεν αὐδὴν τρίποδος ἐκ χρυσοῦ λακών, exactly expresses the v. of Lucr. who translates the oracular ἔλακεν by *profatur.* To consult the oracle, you passed through the temple into the μέγαρον or room built of five stones: still farther in was the cavern, forming the ἄδυτον or χρηστήριον: in it just over a deep narrow cleft was placed the tripod; on the tripod the λέβης or *cortina* or pot, in shape a half-sphere: its lid was the ὅλμος or hollow cover on which the Pythia sat; all round were suspended garlands of the bay-laurel: the smell of these was supposed to increase the prophetic afflatus, excited by the cold air which came out of the deep cleft: they are the στέμματα of Aristophanes, the δάφνη of Callimachus, the *laurus* of Lucr.: to them Pind. ol. VII 32 alludes in εὐώδεος ἐξ ἀδύτου. 738 739 recur V 111 112: with the abl. *tripodi* Lach. compares II 416 *Cilici*, III 132 *Heliconi.* 740 *fec. ruinas*: metaphor from a building or other heavy body falling; perhaps from a carriage breaking down: Horace has the same expression: Lucr. uses more than once the more common *dare ruinas*: see n. to IV 41 *dicessum dederint*: Cic. de fin. I 18 applies the same metaphor to Epicurus himself, *illas Epicuri propriae ruinas*;

and II 18 *ruit in dicendo.* 741 after Homer's *κεῖτο μέγας μεγαλωστί*, which Virgil and Ovid imitate in various ways, *gravis graviterque ad terram concidit, ingentem atque ingenti vulnere victum, magnum magno conamine* and the like: Lucr. himself IV 902 *magnum magno molimine navem.* *ibi* is here very emphatic, and therefore its unusual position gives it additional force.

742 *motus* cet. the impossibility of which without void he has proved at such length above 335—397: Empedocles 63 thus denies void, *Οὐδέ τι τοῦ παντὸς κενεὸν πέλει οὐδὲ περισσόν*: comp. too Arist. de gen. et corr. I 8 where he elaborately criticises Empedocles' doctrine of *πόροι* and of the motions and unions of things by means of these without void; and shews that his *πόροι* must really mean much the same as the *κενόν* of Leucippus, though Empedocles maintains a *πλῆρες*: he concludes that this system of *πόροι* is *ἢ ψεῦδος ἢ μάταιον.* 745 *admiscent in corpus*: Pliny nat. hist. XXVI 104 has same constr. 747 *pausam*, a word occurring six times in Lucr.; found also in Plautus Ennius Attius, and again brought into use by Gellius Appuleius and other imitators of the older writers. *fragori*: Lucr. alone appears to use this word in its literal sense, here and V 109, 317; and perhaps in the two last places the meaning is transitional. 748 *nec prorsum* = et prorsum non, omnino non: comp. 1005 *Nec prorsum facere*; III 45 *Nec prosum quicquam nostrae rationis egere*; 1087 *Nec prorsum.. demimus hilum Tempore de mortis*; Cic. de fin. II 17 *non prorsus, inquit*; de nat. deor. III 21 *nullo modo prorsus adsentior.* Cic. acad. post. 27 speaking of peripatetics and academics will illustrate Lucr. *eaque etiam interire, non in nihilum, sed in suas partes quae infinite secari ac dividi possint, cum sit nihil omnino in rerum natura minimum quod dividi nequeat*: here is asserted of them exactly what Lucr. objects to, the *cum sit nihil om. in rer. nat. minimum* seeming a prose translation of 748; yet at the same time is denied the inference that they pass away *in nihilum*, which Lucr. below 756 maintains must follow. Empedocles himself 77 and 81 strenuously denies the same, *φύσις οὐδενός ἐστιν ἁπάντων Θνητῶν οὐδέ τις οὐλομένου θανάτοιο τελευτή κ.τ.λ.* and *ἔκ τε μὴ ὄντος ἀμήχανόν ἐστι γενέσθαι Τό τ' ἐὸν ἐξόλλυσθαι ἀνήνυστον καὶ ἄπρηκτον*: Lucr. therefore here as elsewhere is refuting them from his own point of view. 749: see the full explanation of this passage in n. to 599. 750 *ad sensus nostros*: so far as sense can perceive; from which the *mentis ratio* may infer the same relation between the atom and its *cacumen*, which holds between any sensible thing and its *cacumen.* 751 *quae cernere non quis* are of course the atoms; as 600 *Corporis ill. q. n. cernere sensus Iam nequeunt.* 754 *quas* nos *nativa vid. Esse et mortali cum c.*: yes but Empedocles saw them to be as immortal as the atoms of Epicurus: comp. 178 *Αἶψα δὲ θνήτ' ἐφύοντο τὰ πρὶν μάθον ἀθάνατ' εἶναι*: they are *θνητά* when in

things, *ἀθάνατα* by themselves. 755 *Esse et mort. cum corp.* with same force as simple abl.: so 347 *esse..raro cum corpore*; 774 *non exanimo cum corpore*; v 352 *quia sunt solido cum corpore*; 364 *solido cum corpore mundi Naturast*; vi 439 *lento cum corpore nubem*; 631 *raro cum corpore tellus Est*; 1059 *raro quia sunt cum corpore*: iii 201 *quaecumque magis cum pondere magno Asperaque inveniuntur*, *cum* has the same force; and iv 1126 *grandes viridi cum luce smaragdi*; v 864 *canum fido cum pectore corda*; vi 5 *virum tali cum corde repertum*; 75 *placido cum pectore adibis.* 756 see n. to 748: 756 and 757 are almost a rep. of 673 674. 758 *iam* belongs to *habebis*: see n. to vi 176. *habebis*: Cic. Verr. v 25 *habetis hominis consilia diligentiam* cet. and 60 *habetis unius civitatis firmum auxilium amissum ac venditum pretio*: *cognoscite nunc* cet.: Forc. has also examples. 759—762: see n. to 701—704, and 984 (998) foll.: he here too concludes a discussion with a short argument addressed to the common sense or the eyesight of his readers. 759 *veneno*: Wak. and Lach. quote Varro de re rust. i 2 18 *quaedam enim pecudes culturae sunt inimicae ac veneno.* 761 *coacta* seems to have somewhat the same sense here, as vi 274 *cogit*, 464 *cogunt*, 718 *cogentes*, 511 *Copia nimborum turba maiore coacta*; but I know no exact parallel. 762 *fulm. imbr. vent.* representing three of the four elements.

763—781: things too might just as well be their elements, since things by turns come from them and pass into them: but if you say that these elements remain unchanged in things, then nothing can be produced from them, since in everything they will shew their own several natures: first-beginnings must have no properties that sense can apprehend. 766 i. e. *res ill. prim. dici retroque p.* 767 *Alt. gign.*: the ever-recurring *μίξις τε διάλλαξίς τε μιγέντων.* 771 *rorem liq.*: see n. to 496. 774 *Non an. res, non res ex. c. cor.*: this is the only place where he uses *animans* in the nomin. and as an adj. 775 foll. much resemble his criticism of Anaxagoras below 880—896, and ii 915 foll. 778—781 are fully explained ii 730—885, where it is shewn that atoms have no sensible properties. 779 *cland. caec.* are joined ii 128 *motus ..clandestinos caecosque.* 781 *proprie esse* is to exist by itself with its own peculiar properties and functions undisturbed by anything alien: vi 985 *quisque* [sensus] *suam proprie rem percipit in se.*

782—802: again they suppose these elements to pass into each other in this ceaseless round, fire air water earth water air fire: but first-beginnings cannot thus change; they must be eternal, and of such a nature that when some go away, others join, and the rest change their order, those which made fire may now make air or anything else.—It is possible enough that Lucr. viewing Heraclitus through the glosses of the stoics, may have been thinking among other theories of his *ὁδὸς*

ἄνω κάτω: but no one will now attribute to the Ephesian this interchange of the *four* elements: by the vague 'they' Lucr. no doubt points mainly at the stoics; whose champion says in Cic. de nat. deor. II 84 *cum quattuor sint genera corporum, vicissitudine eorum mundi continuata natura est. nam ex terra aqua, ex aqua oritur aër, ex aere aether; deinde retrorsum vicissim ex aethere aer, inde aqua, ex aqua terra infima. sic naturis iis, ex quibus omnia constant, sursus deorsus ultro citro commeantibus mundi partium coniunctio continetur*: and comp. ib. III 31. Martian. Cap. VII 738 p. 592 Kopp *ex informi materie* [their ἄποιος ὕλη] *primus ignis, ex igni aer, ex aere aqua, ex aqua terra; item fit adscensio et ex terra aqua est, ex aqua aer, ex aere ignis, ex igni in* cet.: with 787 788 too comp. Emped. 122: for him also Lucr. must partially include: ἀλλ' αὔτ' ἔστιν ταῦτα δι' ἀλλήλων δὲ θέοντα Γίγνεται ἄλλοθεν ἄλλα διηνεκὲς αἰὲν ὁμοῖα: which are repeated with some difference 136 137. 782 *repetunt a*: thus used without an object by Cic. pro Archia 1 *inde usque repetens*; de orat. I 91 *cum repeteret usque a Corace nescio quo et Tisia*; Aen. I 372 *si prima repetens ab origine pergam.* 783 *auras aeris*: 801 *aeris auras*: see n. to 207. 784 *imbrem.. imbri*: see n. to 715. 787 *inter se mutare*: comp. VI 456 *haec comprendunt inter se*; and perhaps I 397 *Ipse in se trahere*, where see n.: so Cic. de orat. II 13 *qui cum inter se.. amicissime consalutassent*; Laelius 82 *neque solum colent inter se ac diligent, sed etiam verebuntur*; ad Att. VI 1 12 *Cicerones pueri amant inter se*: so Plautus *amare inter se* more than once. 788 *sidera mundi*, a favourite expression, imitated by Virgil who has also *astra mundi, lumina mundi*: *mundi* here, as often in Lucr. and others, = caeli: Catul. LXIV 206 *concussitque micantia sidera mundus.* 790 791 the same in meaning as 672 673, though the expression is varied; while 792 793 are exactly repeated from 670 671, where see note. 794 *quas* i. e. the so-called four elements. 795 *In comm. ven.* seems to resemble the very common phrases *venire in discrimen, periculum, odium, contemptionem, consuetudinem* and the like: *commutatum*, a ἅπαξ λεγομ. = commutationem: see n. to 653. 796 *ea* the four elements: *ex aliis quae* etc. such other *primordia* as cannot change. 797 *tibi*: Lucr. is fond of this dativus ethicus as they call it: this very line occurs four times: comp. also 773 *Nulla tibi ex illis poterit res esse creata*; 918 *tibi pereunt primordia rerum*; II 500 *Iam tibi* cet.; 1038 *Quam tibi iam nemo* cet.; III 197 *ut ab summo tibi diffluat altus acervus*; 279 *Sic tibi nominis* cet.; IV 511 *Illa tibi est igitur*; 875 *tibi anhela sitis*; V 260 *terra tibi libatur*; 294 *nocturna tibi*; 805 *Tum tibi terra dedit*; 1209 *Nequae forte deum nobis* cet.; III 992 *Tityos nobis hic est.* 798 *Quin potius.. constituas?* most writers would here prefer the indic.: see n. to 588: that his atoms do thus work he will abundantly shew in the second book; and indeed it is reiterated in the next

paragraphs 817—829, 902—920. 802 *sic* = et sic, and couples this line with what precedes.

803—829: but, you will say, all these four elements are necessary for the production of things: true; and without meat and drink, life cannot continue: the reason is the same in both cases: many first-beginnings are common to many things; and the same by various mixtures motions and the like may produce the most different things; just as the same letters go to quite different words. 803 foll.: you see the earth out of which, the air into which all things grow; the rain and sun by which they grow. 805 *indulget* gives full play to: so Virgil *indulge ordinibus*, *hospitio*; and Livy *indulgere ardori militum*. 806 *tabe nimborum* appears to have much the force of VI 521 *nimbi rigantes*: the *nimbi* melt into water: comp. the metaph. VI 514—516: 'but perhaps it is better to make *tabe* refer to the trees: the force of the *nimbi* seems to make them dissolve into water; comp. Aen. I 173 *sale tabentis artus*: III 19 the *nimbi* are the actual rain-storms shed from the *nubila*. *tabē*: this line is quoted by Priscian inst. VII 72 for the *ē* of *tabe*: comp. III 734 *contagē*. 808 *possint* is potential, not subj.: see n. to 327. *animantis*: this is one of 14 cases in which *-is* has been retained by me in the nom. plur. after Lach. on the authority of both A and B: the other cases occur in II 577, 955, 1155, IV 452, 1203, 1221, V 216, 494, 524, 525, 1072, VI 221, 936: see Lach. p. 56 and introduction p. 27: among these 14 examples we find indifferently participles adjectives and substantives; and this quite agrees with all other testimony on the subject. 809: here begins the poet's answer: yes, and meat and drink feed the body; yet the body's first-beginnings are not meat and drink. *cibus aridus*, as 864: *tener umor* occurs in Virg. geor. II 331. 813 *certis*: see n. to 521. 813—816 notice *res* 5 times repeated in three vss. and the antithetical and alliterative form of the whole sentence; and comp. 893—897 where *res* likewise occurs 5 times: also 690 691 *res*, *rem*, *rerum*; IV 42 43 *rerum*, *rebus*, *rerum*, and many such like: assonances and alliterations of all kinds seem to possess for Lucr. an irresistible attraction. *ratio* is nearly as great a favourite as *res*: I 128—130 *ratio*, *ratione*, *ratione*, and in different senses. *corpus*, *corpora* too is used with like frequency: see also note to 875, where however the instances are to our taste more faulty. 817 foll. repeated with slight change 908 foll. and II 760 foll. 819 *dent motus* here and in the four repetitions means, impart motion to others; II 311 *dat motus* is, moves itself: comp. *dare ruinam* and the like, and n. to IV 41. 814 foll. give his own doctrine so often repeated. 823 foll.: this illustration occurs several times in the poem, as 197 and 912 foll.: the 24 letters of the alphabet can form an enormous number of permutations; how many more then these *primordia*, the different shapes of which are so many

times more numerous than those letters, while the number of atoms of each shape is infinite, as shewn in the 2nd book? Arist. de gen. et corr. I 2 in illustrating precisely the same doctrine of Democritus and Leucippus, adds p. 315 b 14 ἐκ τῶν αὐτῶν γὰρ τραγῳδία καὶ κωμῳδία γραμμάτων. 826 *sonitu sonanti*, a mere poetical assonance, like *anxius angor*, *penitus penetrari*, *fera ferri*, *apparet aperte*, *domi domitos*, *semine seminioque*, *fera saecla ferarum*, *misero misere*, *Nec validas valeant*: comp. Aen. II 53 *cavae cavernae*.

830—874: the homoeomeria of Anaxagoras is equally defective: everything he supposes to consist of infinitely small particles of the same nature as the thing: bones of small bones, and so on: he denies too void and any limit to the division of things, like those above mentioned: such first-beginnings as these cannot resist destruction; so that things would return to nothing. Again, as food increases the body, the parts of the body are formed of things different in kind: or if you say all food has particles like the parts of the body contained in it, then meat and drink consist of particles different in kind: the same dilemma will apply to what grows out of the earth, to flame latent in wood, and the like.—That Lucr. had much sympathy with Anaxagoras will be seen at II 991 foll. where he translates from Euripides and adapts to his own purpose a passage founded upon Anaxagoras' system. There were also other points of contact: Anaxagoras held, as did Epicurus, that the sum of matter in the universe was always the same, and that nothing could pass into nothing. Though Lucr. 847 foll. tries to show that Anaxagoras' principles lead to a different conclusion, he says, frag. 22 Schaub. (17 Schorn), in words that Epicurus might have adopted, τὸ γίνεσθαι καὶ ἀπόλλυσθαι οὐκ ὀρθῶς νομίζουσιν οἱ Ἕλληνες· οὐδὲν γὰρ χρῆμα γίνεται οὐδ' ἀπόλλυται, ἀλλ' ἀπ' ἐόντων χρημάτων συμμίσγεταί τε καὶ ἀποκρίνεται. The many points of difference Lucr. himself clearly shews: see also the editor's note 21 to Archer Butler's lectures on ancient philos. I p. 322. His refutation of Anaxagoras much resembles even in language his argument against Empedocles. 832 *patr. serm. eg.*: see above p. 100 foll.: these words are quoted by Pliny epist. IV 18.

834 *homoeomerian*: the word is not found in the few extant fragments of Anaxagoras, but Lucr. distinctly here states that he did use it: Lucr. seems to denote by the term the relation which existed between the things in being and the particles like in kind, of which they were composed, ἄπειρα, as Anaxagoras says frag. 1, καὶ πλῆθος καὶ σμικρότητα: these he himself names σπέρματα or χρήματα, Aristotle τὰ ὁμοιομερῆ στοιχεῖα, ἀόρατα ὁμοιομερῆ, and the like: the later Greeks call them ὁμοιομέρειαι in the plur. probably from some misconception. 835 foll. most or all of the examples here given are found in Aristotle Simplicius and others, so that they were doubtless employed by Anaxagoras himself.

836 *pauxillis, minutis*, to express what Anaxagoras taught were infinite in smallness. 837 *viscus, viscera*, occur very often in Lucr. and always I believe denote the whole of the flesh and soft substance between the skin and bones. *sanguen* neut.: see Lach. 839 *auri*: see notes 1: not only Simplicius there cited, but also Philoponus and Laertius use this illustration; which no doubt comes from Anaxagoras himself. 841 *Ignibus ex*: II 731 *albis ex alba*, 791 *sed variis ex*, III 375, 839, 858 and V 949 *quibus e*; VI 788 *terris ex omnia surgunt*; IV 597 *Haec loca per*; V 770 *loca..inimica per exit*; 1264 *viam per*: VI 747 *Cumas aput*, 940 *Qua de* are more usual. Lucr. is fond of this order, adj. prepos. and then a word intervening between it and the subst.: III 10 *tuisque ex, inclute, chartis*; IV 829 *validis ex apta lacertis*: with these comp. Virg. ecl. VI 19 *ipsis ex vincula sertis*: VI 714 *medium per saepe calorem*; 855 *supera de reddere parte*; 1202 *capitis cum saepe dolore*; IV 472 *sua in statuit vestigia*: VI 1160 *noctem per saepe diemque* is of the same nature. 844 so he himself in terms repugnant to an epicurean, frag. 5 (15) οὔτε τοῦ σμικροῦ γέ ἐστι τό γε ἐλάχιστον, ἀλλ' ἔλασσον ἀιεί. τὸ γὰρ ἐὸν οὐκ ἔστι τομῇ οὐκ εἶναι κ τ.λ.: τομῇ Zeller for τὸ μή. 846 *illi*, Empedocles and the rest: see 734 foll. 848 *Si prim. sunt, sim.* etc.: Anaxagoras gives to his particles, frag. 3 Schorn, χροιὰς καὶ ἡδονάς, colour and taste; while Lucr. in II takes such pains to prove that his atoms can have no secondary qualities: again frag. 16 Anaxagoras says that as there can be no minimum, his particles cannot exist alone, ἀλλ' ὅκως περὶ ἀρχήν, καὶ νῦν πάντα ὁμοῦ: to Lucr. an absurdity, who will only reason from his own premisses. 850 *neque* [*eas*] *refrenat*: see n. to 718. 851 *oppressu* may be added to the words enumerated in n. to 653. 859—866 a dilemma: food supports the body: are the particles ὁμοιομερῆ with the food? then the body consists of what is not ὁμοιομερές with it: or if you say that every kind of food has in it whatever the body has, bones veins blood, then will meat and drink consist of particles not ὁμοιομερῆ with them: again the poet's own premisses assumed. 863 *omnino*, to complete the list, go through all the parts specified. 864 *cibus om.* including all nourishment, drink as well as meat, *et aridus cibus et liquor*: *ipse* means 'as well as dry food': = etiam. 865 *alienigenis* is the opposite to ὁμοιομερής. 866 *sanie*: for the difference between it and *sanguis* see Celsus V 26 20, quoted by Forc., *sanguis omnibus notus est; sanies est tenuior hoc* cet. 867—874 a similar dilemma, which the lost vss. render obscure: trees and the like grow out of the earth, therefore the earth consists not of ὁμοιομερῆ, but of minute trees and the like: flame smoke ash are latent in wood; therefore wood consists of minute flames etc. not of ὁμοιομερῆ: again trees when above ground are fed out of the earth: if the earth consists of ὁμοιομερῆ, then trees are fed and increased by things not ὁμοιομερῆ; and

similarly of the flames which are seen to be fed by wood. 870 *Transfer*: Cic. de off. I 51 *quod ab Ennio positum in una re transferri in multas potest.*

875—896: Anaxagoras tries to extricate himself by assuming that everything is latent in everything; but that that only is perceived, of which the like particles are most numerous and most prominent: a manifest fallacy; for then corn when ground, stones when rubbed, grass when chewed, clods when pulverised, wood when split should shew little bloods, grasses, ashes and fires, respectively: the truth is that the seeds of things have no qualities like to those of things in being. 875 *latit.*: comp. Cic. de fin. II 107 *si tuam dicerem, latebram haberes*: notice *latitandi* and 877 *latitare* in two different senses with nothing in common. Lucr. like the old Latin writers generally, loves as we have said assonance alliteration antithesis and the like so dearly, that often the use of a word seems to suggest to him a repetition of it, without any point whatever, and therefore to our taste faulty: comp. 893 *docet res, Scire licet non esse in rebus* cet.; 976 *exempta fine* with 978 *finique locet se* and 979 *non est a fine profectum*; 975 *effugium praecludit* with 983 *Effugium . . prolatet*, II 714 *caecis Corporibus fugiunt e corpore*; 1018 *discrepitant res*: *Sic ipsis in rebus*; III 364 *Lumina luminibus*; 451 *validis quassatum est viribus aevi Corpus et obtusis ceciderunt viribus artus*; VI 718 *Cogentes sursus replent coguntque manere* and the like. 879 almost repeated IV 97 *In promptu quoniam est in prima fronte locata*: in both cases *in promptu* is not connected with *locata*: comp. the other examples of its use in Lucr. Cicero etc. 875—879 this which Lucr. declares to be a sorry subterfuge, was in fact the very corner-stone of Anaxagoras' physics. His particles were infinite in number and smallness; from the necessity of the case everything was mixed with everything, except only his νοῦς: his νοῦς, see fr. 6 (7), was mixed up with nothing, because if mixed up with anything, then it must have been mixed up with everything: but ἐν παντὶ παντὸς μοῖρα ἔνεστι πλὴν νόου, and again παντάπασι δὲ οὐδὲν ἀποκρίνεται οὐδὲ διακρίνεται τὸ ἕτερον ἀπὸ τοῦ ἑτέρου πλὴν νόου. .·. ἀλλ' ὁτέων πλεῖστα ἔνι, ταῦτα ἐνδηλότατα ἓν ἕκαστόν ἐστι καὶ ἦν: that is each individual thing is what it is by having in it the greatest number of ὁμοιομερῆ στοιχεῖα, particles like to it in kind.

880 a v. occurring four times in almost the same words. 882 *rob. saxi*: II 449 *duri robora ferri*; Virg. geor. I 162 *grave robur aratri.* 883 *aliquid* [eorum] *quae*: Virg. ecl. II 71 *aliquid . . quorum indiget usus*, but there the gen. makes it much less harsh; as II 583 *Nil esse, . . quorum natura*; III 184 *res ulla...quorum natura*: comp. VI 814 *vitai copia desit* [iis] *Quos* cet. Aen. XI 172 *Magna tropaea ferunt quos dat* cet. where Wagner gives several other instances from Virgil: the idiom is found in prose; Valer. Max. II 10 1 *ne de aliqua re, quae in his*

relatae erant, videretur dubitasse; Liv. XXIII 15 4 *praemia atque honores, qui remanserint.. proposuit.* 884 *lapidi* is abl.: so 1111 *de parti*, II 520 *mucroni*, VI 66 *rationi*: see n. to 978 *fini*: at least the dat. would here be very unusual and harsher than the abl. though it may possibly be the former; but comp. Plautus quoted at the end of n. to 887. 885 *herbis.. decebat* of mss. I now retain; because *decet* with a dat. is common in the old writers; see Forc. and comp. Sall. fr. hist. I 98 (100) *locum editiorem quam victoribus decebat* [i. e. capere] *capit*: there is anyhow a slight anacol.: it should be *herbis q. s. d. Et lat... et videri* i.e. herbis; but for clearness he adds in 889 *herb. genera* cet. so that the *Et* of 886 becomes misplaced: as he could not use *generibus*, the change to the accus. appears quite natural. 887 the constr. is by no means plain: Lach. explains it thus, *dulces guttas mittere* tales *quali oves sunt ubere lactis*, taking therefore *lanigerae* as the nom plur.: this is surely harsh with *simili sapore* coming between *guttas* and *quali ubere*: I am disposed to take it thus, *sapore, quali* [sapore guttae] *sunt lanigerae* (dat.) [in] *ubere lactis*; but the *qualis* (nom. plur.) or *quales* of A and Nic. Nicc. is perhaps right. *lanigerae*: comp. *squamigeri* and *pennipotentes*, likewise used absolutely. *ub. lac.*: so II 370 and Tibullus *ubera lactis*; Lamb. quotes from Varro *mammam lactis*. With one exception the above examples are plain enough: corn should give blood, because we are fed by it; grass milk, because sheep eat it; grass earth when pounded should yield corn leaves, because they grow out of it, wood give smoke and fire, because they are fed by it: but why the example in 884? Lamb. after Turnebus seems to explain it rightly, as denoting another way of grinding corn; comp. Plaut. asin. 31 *Num me illuc ducis, ubi lapis lapidem terit?* 895 896 very like 814 815, expressing the epicurean doctrine of *primordia* against Anaxagoras as there against Empedocles. 895 *multimodis*: see n. to 683 *omnimodis*.

897—920: but you say trees often take fire by rubbing against each other: true, but for all that fire is not in them; else it would burst forth at any moment: the fact is fire and firs have many first-beginnings in common, just as the words have letters in common; but the two things, as the two words, are yet quite distinct. Again if you think a thing cannot be, unless its first-beginnings are of a like nature, then you must give these human feelings, in order that they may make a man.— This passage in meaning and in language greatly resembles 803—829: the reason is plain: the particles of Anaxagoras seemed to Lucr. liable to the same objections as the four elements of Empedocles, each giving to his elements those secondary qualities which only belong to things in being. 900 *flam. flore*: editors comp. πυρὸς ἄνθος of Homer and Aeschylus, and IV 450 *lucernarum florentia lumina flammis.* 902 *sem. ardoris*, which yet have none whatever of the properties of fire. 904

facta, fully made, opposed of course to the *semina*, which might in other circumstances form water or anything else. 907 *paulo ante* i. e. 817 foll. where the language is almost the same: see notes there. 912 *ignes et lignum*: because here fire coming from wood is the question; in 820 *caelum mare terras* cet. because there it is the four elements that is the subject examined. 915—920: here again he closes a long discussion with a short argument appealing to common sense against the theory combated: see 701 foll. 759 foll. 984 (998) foll. 918 *tibi*: see n. to 797. 919 920: comp. II 976 *Scilicet et risu tremulo concussa cachinnant Et lacrimis spargunt rorantibus ora genasque*: in each case he pushes the argument to what he deems the last absurdity, that of endowing first-beginnings with human feelings and actions: Anaxagoras' theory, he here says, requires you to believe that everything has infinitely small men and women and the like mixed up in it.

921—950: 'listen now: inspired by the muses I enter on an untrodden path to cull a wreath yet worn by none: I am going to burst the bonds of religion; and clear up a dark subject by lucid verses, verses o'erlaid with the honey of the muses, in order to beguile my readers to their own profit, even as the rim of the cup is smeared with honey to entice children to drink the bitter but wholesome draught of wormwood'.— The poet has hitherto explained the nature of his two great principles of void and atoms, and shewn the insufficiency of those of rival teachers: he now, before proceeding to apply these two principles to explaining the system of the universe and of this world of ours, calls attention to his theme in this lofty exordium. 922 *an. fal.*: see n. to 136. 923 comp. Aen. IX 197 *magno laudum percussus amore.* 924 *incussit am.*: so 19 *incutiens blandum per pectora amorem*; Virg. geor. II 476 *ingenti percussus amore* i. e. musarum. 926—950 rep. IV 1—25, except the last 4 words. 926 foll. there are many well-known imitations of these vss.: by Virg. geor. III 10 foll. joined with 291 foll.; Hor. epist. I 19 21 foll.; Manil. I 4—6; and others. 927 *integros* hitherto untasted by any one, with perhaps the notion of unsullied: Nemesianus cyneg. 11, in his imitation, *intacto premimus vestigia musco.* 932 *Relig. nod.*: see n. to 109. 933 *obsc. lucida*: see n. to 639 *Clarus ob obscuram.* Cic. de nat. deor. I 58 Cotta says to the epicurean Velleius *iudico tamen de re obscura atque difficillima a te dictum esse dilucide.* 934 *contingens*, 938 *contingunt* and 947 *contingere*: Lamb. here and elsewhere rightly makes this word a compound of *tango*: VI 1188 *croci contacta colore*; *continctus* is not found in Lucr.: Virg. geor. III 403 and 448 *contingunt* is probably the same form. 935 *non ab nulla rat.* means of course with very great reason: the *ab* is not easy to explain: Lamb. compares *locus a frumento copiosus, a vero sensu iudicas,* which are not very like. Perhaps it is simplest to understand it like II

51 *fulgorem ab auro*, the glitter coming from gold: see passages quoted there from Livy and others: it = therefore non a nulla ratione proficisci, non nullius rationis esse: or has it the meaning of *stare, esse a ratione, a parte rationis*? or is it like Cic. pro Mur. 63 *nostri illi a Platone et Aristotele*? but that is perhaps a mere Grecism. 936 *taetra* denotes esp. what is nauseous to taste or smell. 941 *dec. non cap.* in form resembles Enn. ann. 360 *Nec cum capta capi* cet. imitated in Aen. VII 295 *Num capti potuere capi* cet. but the sense differs: it is rightly explained perhaps by Turneb. adv. VI 14 'tractum esse videtur a feris avibus piscibus; nam fovea pedica nassa area esca decipiuntur atque capiuntur, in damnumque et incommodum incidunt: non tamen pueri cet.' Tasso Ger. lib. I 3 *E dall' inganno suo vita riceve*: Fairfax reproduces better the point of Lucr. *They drinke deceivd and so deceivd they live.* Aen. IV 330 *Non equidem omnino capta ac deserta viderer*, *capta* is much stronger than *decepta* would be. 944 *Tristior* = amarior: IV 125 *tristia centaurea*; 634 *quod triste et amarumst*; VI 780 *saporeque tristia quae sint*; Virg. geor. III 448 *tristi amurca.* 945 *suav. Pierio.. musaeo dulci:* see n. to 258. 949 *dum perspicis* is the idiomatic tense: Cic. ad Att. X 3 *ego in Arcano opperior, dum haec cognosco*; Ter. eun. 206 *expectabo, dum venit*; Virg. ecl. IX 23 *dum redeo.. pasce capellas*: sometimes it is doubtful whether *dum* signifies 'until' or 'whilst'; but here and in the passages just quoted and IV 24 *dum perspicis o. N. r. ac persentis utilitatem* it plainly means 'until'. 950 *compta*: III 258 *quo pacto inter sese mixta quibusque Compta modis vigeant*; IV 27 *quibus e rebus cum corpore compta vigeret*; and III 845 *qui comptu coniugioque Corporis atque animae consistimus uniter apti*: the metaphor must be from dressing and braiding, and building up a complicated structure with, a head of hair.

951—957: 'I have proved the existence of indestructible atoms and of void or space: are these atoms infinite in number? is this space infinite in extent?' 957 *profundum* in Lucr. means unfathomably deep, and hence is almost synon. with *immensus*: comp. his use of *solidus, plenus, celer, magnus* and the like in n. to IV 63.

958—987: well then the universe is bounded on no side; for then it must have an end or outside; in which case there must be something beyond it, which may be seen to bound it; but there can be nothing outside the universe, which is therefore boundless on all sides. Again say for the moment space is finite: go now to its verge and fling a javelin: will it go in the direction you throw it, or will it be stopped by something? if there is something beyond to stop it, that something is in the universe; if it goes on, it has not started from the end of space: therefore you will be always in the universe, wherever you fling it. Lastly whatever you see, is bounded by and into something different;

earth by sea, sea by earth and the like; but what is there outside to bound the universe?—Lucr. has had great injustice done him here by the misapprehension of his editors and others who strangely take *omne quod est, omne quod est spatium, rerum summa* to be all synonymes: a right explanation of 968 *si iam..constituatur*, and the transposition which I have made of 984 (998)—987 (1001) will I believe make his argument quite clear: he is going to shew that space is infinite and matter infinite: the former he proves 988 (984)—1007, the latter 1008—1051; but first for the sake of completeness he states in our present section that the universe or *omne* or τὸ πᾶν is infinite. There can of course properly speaking be no proof of this, as Lucr. has wisely seen: it must from the nature of the case be shewn by a series of identical propositions, call them as you please definitions postulates or axioms: these propositions however are most clearly put by him, when he is rightly interpreted. 958 *quod est* is added to *Omne*, as in 523: so 969 *Omne quod est spatium*: to make the expression more clear: τὸ πᾶν is Epicurus' term: Lucr. calls it also *summa omnis, summa summai totius omnis, summa summarum* and sometimes *omnia*. 958 *nul. reg. vi.*: take whichever of the roads through the universe you please, at no point in any of them will you reach its bound: comp. II 260 and 293 *Nec regione loci certa*. 959 *extremum* is the ἄκρον of Epicurus. 961 *ut vid.* i. e. ita ut videatur illud, quo longius noster sensus non sequatur: so that any one standing at this point sees where the thing ends and something else begins: *haec sensus nat.* = simply *hic sensus*; as *natura aquae, mundi, animi* and the like. 962 *sequatur*: Aen. VIII 592 *oculisque secuntur Pulveream nubem*. 964 the *ergo* follows from 959 *namque* cet. The above is almost a translation of Epicurus in Diog. Laert. x 41 τὸ πᾶν ἄπειρόν ἐστι· τὸ γὰρ πεπερασμένον ἄκρον ἔχει· τὸ δ' ἄκρον παρ' ἕτερόν τι θεωρεῖται. ὥστε οὐκ ἔχον ἄκρον πέρας οὐκ ἔχει, πέρας δ' οὐκ ἔχον ἄπειρον ἂν εἴη καὶ οὐ πεπερασμένον: comp. too Cic. de div. II 103 *videsne Epicurum.. quemadmodum quod in natura rerum omne esse dicimus, id infinitum esse concluserit?* quod finitum est *inquit* habet extremum. *quis hoc non dederit?* quod autem habet extremum, id cernitur ex alio extrinsecus. *hoc quoque est concedendum.* at quod omne est, id non cernitur ex alio extrinsecus. *ne hoc quidem negari potest.* nihil igitur cum habeat extremum, infinitum sit necesse est. 966 *quem qu. l. p.* = quemcumque locum aliquis possedit. IV 179 *In quem quaeque locum diverso numine tendunt*; Cic. de orat. I 130 *ut, in quo quisque artificio excelleret, is in suo genere Roscius diceretur.* 967 I am not clear whether *quisque* or *locus* is subject of *relinquit*, I believe the former is.

968 *si iam* must be noted: when thus used, usually as here with a pres. subj., but not always, it means granting for the moment such or

such for the sake of argument, yet that which is affirmed will still follow, or that which is denied will still not follow: the reasoning therefore is, granting for the moment space to be finite, yet none the less the general conclusion will be true that the *omne* is infinite; it therefore introduces another proof of this fact; and has nothing to do with proving space to be infinite: the demonstration of that begins at 988 (984): comp. III 540 *si iam libeat concedere falsum Et dare...Mortalem tamen* cet.; V 195 *Quod si iam rerum ignorem primordia quae sint, Hoc tamen* cet.: also I 396 with imperf. *Nec, si iam posset, sine inani posset*; and III 766 with indic. *quod si iam fit, fateare necessest*; and 843 *si iam nostro sentit* cet.: see also IV 1171 *Sed tamen esto iam.* For this use of *si iam* and a similar one of *ut iam* in Cicero and *iam ut* in Livy and Caesar see Madv. de fin. p. 589: Tusc. disp. I 50 *si iam possent*, not referred to by him, is a good instance. 970 *Ultimus* is added to give force and point to *extr. oras*: it appears to be proleptic: he runs forward to the outmost edge, so as then to be standing on its farthest point: comp. Cic. de nat. deor. I 54 *si inmensam et interminatam in omnis partis magnitudinem regionum videretis, in quam se iniciens animus... peregrinatur ut nullam tamen oram ultimi videat, in qua possit insistere*; de fin. I 17 *nec ultimum nec extremum*; 29 *extremum et ultimum*; II 6 *id extremum, id ultimum*: all apparently mere pleonasms. 971 comp. Aen. II 50 *validis ingentem viribus hastam.. Contorsit.* 976 *exempta fine*: 1007 *Finibus exemptis*; so Ovid *exempto, dempto fine.* 977 *probeat*: III 864 *probet*: *praebere* and *debere* are quite analogous. *probeat officiatque*: 973 *prohibere obstareque*, and above *officere atque obstare*; *pugnet et obstet*; also II 784, 786 and 794 *officiunt obstantque, inpediunt prohibentque, contra pugnet et obstet*: his constant imitator Arnob. II 11 has *officiant nihil nihilque inpediant quominus.* 978 *fini* is in the mark or limit aimed at: Lucr. has many such ablatives, *colli tussi orbi bili sordi pelli*, as well as *navi igni imbri* and even *labi*; *mucroni rationi parti lapidi* (?): and with 976 *fine*, 978 *fini*, 979 *fine* comp. IV 232 *luce*, 235 *luci*: in Greek words he has these ablatives in *i*, *tripodi Cilici Heliconi*, as noticed above. 979 in either case it has not started from the limit of the *omne*: in the former case body has stopped it, and this body must be in the universe; in the latter space has afforded it room to fly on. Notice *finis* thrice within three lines in three senses: observe too *effugium* in 975 and 984 with different meanings; and see n. to 875. 980 *sequar*: so II 983 *Quippe sequar*: I will follow up, press the argument. *oras extr.* the outer edge of the *omne.* 981: here too the use of *fiat* in one sense seems actually to suggest to him *Fiet uti* in a different sense; so strangely does he love such assonances; and in addition to what has been said here and to 875, obs. in 983 *Effugiumque fugae.* 983 *prolatet* is to enlarge the bounds, and thus ever to give

room for further flight. Bentl. in 970 for *Ultimus* proposed *Nuntius* without necessity; but he rightly saw, as Wak. observes, that this illustration was suggested to Lucr. by the Roman mode of declaring war: in the words of Livy I 32 12 *fieri solitum ut fetialis hastam.. ad fines eorum ferret...hastam in fines eorum emittebat.* But you cannot go out of the *omne* to fling a spear into a neighbour's bounds. A similar dilemma is said to have been used by Archytas to prove the infinity of body: go to the extremity of heaven and try to put out your hand or staff: you can or cannot: and so on. In very similar language too Locke essay II 13 21 seeks to prove space infinite: he asks 'whether if god placed a man at the extremity of corporeal beings, he could not stretch his hand beyond his body: if he could, then he would put his arm where there was before space without body:..if he could not stretch out his hand, it must be because of some external hindrance...and then I ask whether that which hinders his hand from moving onwards be substance or accident, something or nothing'.

984 (998)—987 (1001): he concludes his argument on the *omne* with a short statement taken from what comes under the sight of all: comp. what is said above on 701 foll. 759 foll. 915 foll.: comp. too II 471—477, III 367—369, V 506—508, 556—563, 646—649. That these vss. should be placed here admits I think of no question: they utterly destroy the sequence of the reasoning, where they come in mss. For a probable explanation of why they got out of place see above p. 22: ignorance of the different stages of the argument would suggest that *Postremo* must follow *Praeterea* of 988: and therefore the first editor would not unnaturally give to this addition of the poet's the place it has in all mss. All finite things bound and are bounded by something discontinuous and distinct in kind: comp. the stoic Cleomedes de meteor. I 6 at end *πᾶν τὸ πεπερασμένον εἰς ἑτερογενὲς περατοῦται καὶ ὅ ἐστιν ἕτερον τοῦ πεπερασμένου. οἷον εὐθὺς ἐν τοῖς ὅλοις ὁ ἀὴρ περατούμενος εἰς ἑτερογενῆ καταλήγει, τόν τε αἰθέρα καὶ τὸ ὕδωρ κ.τ.λ.*

988 (984)—1007: but space or void is likewise infinite; else matter during past eternity must have sunk in a mass to the bottom, and nothing could exist: but as space is infinite on all hands, there is no lowest point to which first-beginnings can tend: they have boundless room to move in for ever.—Having shewn the *omne* to be infinite, he now proceeds to decide one of the two questions mooted above 953 foll. and to prove space to be infinite. 988 (984) *summai totius* is another name for the *omne*. 991 (987) *confluxet*: see n. to 233. 992 (988) *sub caeli tegmine* recurs II 663 and V 1016, after Cic. Arat. 47 *lato sub tegmine caeli*. 996 (992) *At nunc*: see n. to 169. 999 (995) *in ads. motu*: so II 297 *quo nunc in motu*; 309 *cum rerum primordia sint in motu*: but IV 392 *et adsiduo sunt omnia motu*. 1000 (996) *in-*

ferna: it is true that according to Lucr. there is no lowest point in space; and perhaps he and Epic. would have said that up and down were mere relative terms. But his conception of atoms implied, as we shall see in II, their racing through space at an enormous uniform speed in parallel right lines in one direction, with the curious exception explained II 216 foll. This inherent motion both Epicurus and Lucr. understand as a motion downwards: they had no other conception of downwards in space. When by the artifice spoken of atoms were enabled to clash and combine, both Epicurus and Lucr. conceived the rising up of atoms in a direction more or less contrary to the only natural motion as that which enabled things to come into being and remain in being, and rendered possible the existence and maintenance of the *summa rerum*. It is utterly vain for Lach. to attempt to controvert this: comp. 1035 *nisi materiai Ex infinito suboriri copia posset*, a passage quite parallel to this. 1001 (997) and 1036 *Ex infinito* i. e. spatio; as V 367 *Ex infinito quae possint forte coorta*; 408 *Ex infinito sunt corpora plura coorta*; 414 *Ex infinito fuerat quaecumque coorta*: but I 1025 *Ex infinito* = Ex inf. tempore; which in the similar passages V 188 and 423 is expressed, *Ex infinito iam tempore percita plagis*: so indifferent is Lucr. to such ambiguities. *Ex infinito* appears from 1036 *Ex inf. suboriri*, and VI 666 *Ex infinito.. suppeditare*, to depend on *suppeditantur*, but perhaps it refers to *cita* as well. *cita* has its full participial force, as also II 85 *cum cita saepe* and IV 546 *regio cita*: so Hor. epod. IX 20 *Puppes sinistrorsum citae*. 1002 *profundi* is here a subst. as often in Lucr.: so *natura*, *habenas*, *summam profundi*: but he only thus uses it in the gen. sing. 1004 repeated V 1216. 1005 *restat ire*: V 227 *Cui tantum.. restet transire malorum*; Hor. epist. I 6 27 *Ire tamen restat, Numa quo devenit*. *meando* goes with *facere*. 1006 *copia* i. e. spatii. Comp. with this and 996, Cic. de nat. deor. I 54 *in hac igitur inmensitate latitudinum longitudinum altitudinum infinita vis innumerabilium volitat atomorum* cet. where the *infinita vis* is Lucretian. 1006 1007: notice here the poetical redundancy of expression, which with him has also a philosophical import.

1008—1051: and the sum of things and matter too are infinite: the other question proposed above: for space being infinite, if matter were finite, then nothing in being could exist one moment: this world for example and all its parts would dissolve into their atoms; or rather could never have existed; for it is only by an infinite supply of matter that this earth and heaven can be maintained: the mutual clashings of atoms might keep this world, or any other world, supplied for a time; but only for a time: nay without infinite matter, even these clashings could not go on. 1008 *rerum summa*: see what I have already said to 235 of *haec rerum summa* and 333 on *summa rerum*. *summa* is with

Lucr. a very indefinite term: then we have seen *summa omnis, summa summai totius omnis, summa summarum* and the like are all synonymes of the *omne* or universe: *summa loci* is the infinite void or space: as then *res* is his proper term for things in being, *summa rerum* should denote the whole sum of things in being, the whole number numberless of worlds in being throughout infinite space, even as *haec rerum summa* means this world of ours: and this is its regular and usual meaning, as 502 *Unde omnis rerum nunc constet summa creata*, and II 530 *Ex infinito summam rerum usque tenere.* But then as this *summa rerum* is infinite, and as the first-beginnings, out of which it comes and into which it passes back, are also infinite, and as worlds somewhere in the universe are always rising into being and perishing, and thus the relations between the *res* and the *primordia* are constantly changing; as too with Lucr. and all the ancients all infinites are equal; the infinity of *res* and that of *primordia* got mixed together so inextricably, that sometimes, as in our present passage, *summa rerum* means the whole infinite sum of matter, both things in being and atoms out of which they come: II 303 is somewhat ambiguous: see notes there: sometimes as I 334 *summa rerum* is as vague as its cognate *natura rerum*: see also n. to 619. Once, VI 606, as the context fixes the meaning, he ventures to use *rerum summa* for *haec rerum summa* or *hic mundus*; while 649 it has again its most extensive sense.

1009 *Ne possit, tenet*: Livy XXIV 19 7 *Marcellus...tenuit ne irrito incepto abiretur*; Ovid met. VII 146 *Sed te ne faceres tenuit reverentia famae.* 1012 Aut [ita ut] *alterutrum eorum* i. e. aut inane aut corpus, si *alterum* i. e. aut corpus aut inane, non *terminet* illud alterum, *Simplice natura*, i. e. solum, *pateat tamen*, i. e. etiamsi alterum desinat, *inmoderatum.* 1013 *inmoderatum.* Cic. de nat. deor. II 65 translates the ἄπειρον αἰθέρα of Euripides by *inmoderatum aethera.* On the lacuna see notes I and transl. 1014 *templa*: see n. to 120. 1015 *divum cor. san.* existing in the intermundia. 1018 *magnum per inane*, which occurs four times between this v. and II 109, is adopted by Virg. ecl. VI 31: II 1108 *magnum* is an epithet of *omne*: the word thus applied acquires a poetical intensity of meaning; as *solidus profundus celer* and the like: see n. to IV 63 *tenuis.* Of this and the preceding sections Epic. Diog. Laert. X 41 gives a good summary, καὶ μὴν καὶ τῷ πλήθει τῶν σωμάτων ἄπειρόν ἐστι τὸ πᾶν καὶ τῷ μεγέθει τοῦ κενοῦ· εἴτε γὰρ ἦν τὸ κενὸν ἄπειρον τὰ δὲ σώματα ὡρισμένα, οὐδαμοῦ ἂν ἔμενε τὰ σώματα, ἀλλ' ἐφέρετο κατὰ τὸ ἄπειρον κενὸν διεσπαρμένα, οὐκ ἔχοντα τὰ ὑπερείδοντα καὶ στέλλοντα κατὰ τὰς ἀντικοπάς· εἴτε τὸ κενὸν ἦν ὡρισμένον, οὐκ ἂν εἶχε τὰ ἄπειρα σώματα ὅπου ἂν ἔστη.

1021—1027 are repeated with some changes V 419—429 and 187—194. It is mere blind chance, not providence, that has arranged

out of the atoms this world and other worlds; therefore these atoms never could have thus combined, unless there was an infinite supply. 1021 for these three abls. see n. to 183. 1022 *suo* monosyl. here and v 420: so III 1025 *sis oculis* after Ennius: such a syniz. is rare in hexameters; most frequent in dramatic poetry. 1025 *Ex inf.* i.e. tempore: comp. v 188 and 423 and n. to 1001; and also Aen. IX 63 *collecta fatigat edendi Ex longo rabies*. *percita* a favourite word in this sense. 1026 *Omne genus*: Lucr. is very fond of this idiom, common in the best writers: *quod genus* also occurs often: an adj. *omnigenus* is unknown to him; see n. to 683. *motus* and *coetus* are of course acc. plur. 1027 *dispostituras*: so v 192: see n. to 653: it appears to be peculiar to Lucr. 1028 partly recurs v 194. 1029 *magnos annos*: v 644 *Quae volvunt magnos in magnis mensibus annos*. There is no doubt an allusion, perhaps sarcastic, to the theories of the *magnus annus*. He probably had in his mind some stoical interpretation of Heraclitus' ecpyrosis, when our present system should end and a new cycle commence. The poet then means to say, this world, though its term of existence is nothing compared with the eternity of the universe, yet in its present form outlives many of your great years, be they 19 or 19000 of our solar years. 1030 *Ut semel=postquam* here and in the best writers: see Forc. 1031 *fluminis undis* is the stream of water belonging to each *amnis*: see Forc. s.v. and Aen. II 305 *rapidus montano flumine torrens*, which he also cites: IV 1036 *Fluminis ingentis fluctus*. 1033 *summissa*, if the word of Lucr. which is quite doubtful, must have the special sense usual in the script. rei rust. brought up and kept for breeding: see Forc. and Gesner s.v.: the meaning it has in 8 and 193 scarcely is in place here. 1034 *vivant=durent* by a poetical licence: see n. to v 538: a stoic or peripatetic could here use it literally; but to the *philosopher* Lucr. these things are rather an example, as he says v 125, of what is *vitali motu sensuque remotum*. 1036 see n. to 1000. 1037 *quaeque* is accus. agreeing with *amissa*. *in tempore*: comp. 35; and Ter. heaut. 364 *In tempore ad eam veni*. 1038 foll. comp. II 1122 foll. 1039 *am. cor.*: so 810 *amisso iam corpore*; IV 535 *Nec te fallit item quid corporis auferat*. 1041 *aversa viai*, a grecism to which I know no exact parallel: Horace's *sceleris purus*, *operum solutis* are somewhat like: Enn. ann. 209 *viai* seems to depend not on *flexere* but *quo*. 1042 *sum. omn. quaec.* the whole of any sum of matter gathered together, such as our *summa* or *mundus* here spoken of. 1044 *cudere*, an expressive metaphor with *plaga* or *ictus*, to give the force of Epicurus' ἀντικοπή, the counter-stroke which makes the atom change its course and enables it to combine. 1045 *queatur*: III 1010 *potestur*: these or other forms are common enough in the old writers; as *quitur quitast nequitur nequitum poteratur possitur*. 1049 comp. 1036. 1050 *Et tamen*: IV

811 *Et tamen in rebus*; v 768 *Et tamen ipsa suo* cet.; 1177 *Et tamen omnino quod* cet.; 1096 *Et ramosa tamen cum* cet.; 1125 *Et tamen e summo* cet.; vi 603 *Et tamen interdum* cet.: the force of the particles is 'and putting this or other considerations out of the way, even then,' or 'and yet after all' or the like. 1051 *vis opus est*, a common constr. in Lucr. as ii 20, 815, iii 967, iv 1268, 1277, vi 365.

1052—1082: do not believe with some that all things tend to a centre, and therefore the world keeps together without external force, and things and animals beneath the earth cannot tumble into the sky any more than we can fly up to it: that our day is their night, their day our night: this is sheer folly: there is no centre in infinity, and, if there were, things would not be attracted any more than repelled by it: void everywhere alike yields to all body alike.—It is the stoics doubtless whom Lucr. here mainly attacks, though the peripatetics and some others held a similar doctrine: they taught that there was but one finite world surrounded by an infinite void; and that the world was upheld in the way which Lucr. so clearly explains here, by all things pressing to the centre: the earth resting ἰσοκρατῶς, in the words of Zeno in Stob. ecl. i 19 4, at about the centre of the κόσμος, in the same way that the whole finite κόσμος remains fast in the infinite void. Had Epicurus, while retaining his conceptions of infinite space and matter and innumerable worlds and systems, seen fit to adopt this stoical doctrine of things tending to a centre, and so to make his atoms rush from all sides of space alike towards a centre, he might have anticipated the doctrine of universal gravity: see what is said to ii 251 foll. 1052 *fuge* with an infin. is found in Virgil Horace Ovid and Tibullus: see Forc. and Freund. 1053 *quod dicunt=id quod dicunt* or *ut dicunt*: so *quod dico, quod aiunt*, 1080 *sua quod natura petit*, ii 369 *quod natura reposcit*, and the like: Lach. seems to me only to involve the constr. *summae*, of their sum which is finite. 1055 *ictibus ext.* of atoms: see 1042 and 1050. 1056: the stoic in Cic. de nat. deor. ii 115 says *omnes partes eius undique medium locum capessentes nituntur aequaliter* cet. and Zeno himself in Stob. ecl. 1. 1. πάντα τὰ μέρη τοῦ κόσμου ἐπὶ τὸ μέσον τοῦ κόσμου τὴν φορὰν ἔχειν, μάλιστα δὲ τὰ βάρος ἔχοντα. 1057 is parenthetical: Lach. rightly compares the form of expr. in iv 366 *Aera si credis privatum lumine posse Indugredi*: comp. also ii 603 *neque posse in terra sistere terram*. 1058 1059 Lach. and some older editors join these with 1057: this may be right, but I prefer to connect them with 1056: *Et* [fuge credere] *quae pond. sunt*, not *sint*, because it is a mere definition of the poet's own, not depending on the opinion of those criticised. 1059 *retro posta*: if two men are feet to feet, the one is supposed to be reversed or turned upside down, just as your shadow in the water looks to be. 1060 unquestionably is joined with what precedes: see notes

1: Lach. here labours in vain: Lucian Demon. 22 gives just the same illustration, *φυσικόν τινα περὶ τῶν ἀντιπόδων διαλεγόμενον ἀναστήσας καὶ ἐπὶ φρέαρ ἀγαγὼν καὶ δείξας αὐτῷ τὴν ἐν τῷ ὕδατι σκιὰν ἤρετο τοιούτους ἄρα τοὺς ἀντίποδας εἶναι λέγεις*.

1061 if there is here any anacol. at all, it is very slight and natural: *fuge credere*, on which what precedes depends, is so distant, that he prefers to go on with another verb *Contendunt*. *suppa*: Festus quotes Lucilius for this word; and Attius 575 has the verb *suppa* (imper.): it = supinus. 1065 *Illi* the people there, easily inferred from what precedes: yet it is possible that *Illi*, as Lamb. suggests, is the adv.: a well known form; but the pronoun contrasts better with *nos*: Virg. geor. I 250 *Nosque ubi primus equis oriens adflavit anhelis, Illic* [MPR, Probus: *Illis* Seneca] *sera rubens accendit lumina vesper*, there is a similar doubt. 1066 the subject changes, *et* [illos contendunt] *dividere*. *tempora caeli* are of course the seasons of the year; as VI 362 *cum caeli tempora constant*; and as *anni tempora* and *annorum tempora* are often used by him: with them it is midsummer, when with us it is midwinter, and therefore their nights are always equal to our days. 1067 *diebus* i.e. *nostris* is a harsh ellipse. *agitare*=agere, a sense common in prose too: Cic. Verr. II 154 *dies festi agitantur*. 1068 *stolidis* the stoics: see n. to 641. 1069 *Amplexi habent* seems quite the same idiom as *perspectum habere, bellum semper habuit indictum* and the like: comp. too V 1378 *Arbustisque tenent.. opsita*: as *amplexi* is deponent, it agrees with the subject, not the object as in the other cases. 1073 the mutilated sentence makes it impossible to tell whether *longe* goes with *alia* or a lost infin. at end of the verse. 1075 *per non medium*: so II 930 *ex non sensibus*; 932 *a non sensu*. 1076 *Aeq. pond.* more fully expressed II 239 *Aeque ponderibus non aequis*: comp. Epic. in Diog. Laert. X 43 *παρεχομένου τοῦ κενοῦ τὴν ἶξιν ὁμοίαν καὶ τῇ κουφοτάτῃ καὶ τῇ βαρυτάτῃ τὸν αἰῶνα*, where *ἶξιν* should surely be *εἶξιν*: comp. Sextus adv. math. X 223 *διὰ τὴν εἶξιν φέρεται δι' αὐτοῦ [ἡ ἄτομος]*. 1077 *quisquam locus*: III 234 *Nec calor est quisquam*; 875 *quemquam sibi sensum in morte futurum*. Valer. Flaccus VIII 271 *nec foederis ulla Spes erit aut irae quisquam modus*; Sall. Cat. 31 2 *neque loco neque homini cuiquam satis credere*; 58 10 *neque locus neque amicus quisquam teget quem arma non texerint*; Iug. 72 2 *neque loco neque mortali cuiquam aut tempori satis credere*; Plaut. Menaech. 447 *Numquam quicquam facinus feci*: with appellatives it is common enough, *quisquam parens, quisquam civis ingenuus* in Sallust; *quisquam homo, quisquam homo mortalis, quisquam discipulus, cocus, amator*, all in Plautus; Aen. VI 875 *Nec puer Iliaca quisquam de gente*; Tib. I 1·65 *non iuvenis quisquam..non virgo*; Prop. V (IV) 7 13 *nec cuiquam melior sperande puellae*; and Lucr. himself V 36 *neque noster quis-*

quam nec barbarus. 1079 1080 almost repeated II 236 237. 1079 *subsistere*: Plaut. epid. I 1 77 *nisi suffulcis firmiter, Non potes subsistere.*

1083—1113: again they teach that while earth and water tend to the centre, air and fire fly from it, and that the earth sends up food to the tree-tops: they thus contradict themselves: the truth is that the whole of this doctrine is alike false; for, space being infinite, if matter were finite, the world and all that is in it, would in a moment dissolve into their first-beginnings: if on any one side matter fails, the door of destruction is opened to all alike.—Zeno l. l. thus teaches, *οὐ πάντως δὲ σῶμα βάρος ἔχειν, ἀλλ' ἀβαρῆ εἶναι ἀέρα καὶ πῦρ· γίγνεσθαι δὲ καὶ ταῦτά πως ἐπὶ τὸ τῆς ὅλης σφαίρας τοῦ κόσμου μέσον, τὴν δὲ σύστασιν πρὸς τὴν περιφέρειαν αὐτοῦ ποιεῖσθαι κ.τ.λ.*: this exactly agrees with what Lucr. affirms. 1085 this v. seems clearly to interrupt the natural connexion between *liquoris*, and 1086 *umorem* cet.: *quae*, i. e. corpora, *corpore cont.* though harsh, is not unlike Lucr.: comp. II 715 and n. to I 875: it seems not improbable that 1085 is a marginal addition of the poet's brought into the text by his editors. 1089 *tremere, tremulus, tremor* are all used by him to express the bickering of the stars or of fires. 1090 *cae. caer.* recurs VI 96: he has *caerula mundi*, the same thing; and *caerula* alone: Ennius before him *cava caerula* and *caerula caeli templa. pasci*: 231 *unde aether sidera pascit*; V 524 *Quo cuiusque cibus vocat....Flammea per caelum pascentis corpora passim.* 1091 *se ibi*: the elision of a long monosyl. before a short vowel is confined within narrow limits: see Haupt obs. crit. p. 17 who cites from Lucr. I 136, 922, V 97 *Nec me animi*; III 6 *Quod te imitari*; IV 1188 *tu animo*; I 234 *Quod si in eo.* Lach. adds III 574 *In se animam*, which is a false reading, as well as I 874 *quae alienigenis*; VI 755 *vi ibus*, two mere conjectures of his own which both violate the laws of elision: see Luc. Mueller de re metr. p. 284.

1094—1101 see notes I: it is clear that in the lost vss. the clause *nisi* cet. had to be completed; then an apodosis to *quoniam* cet. must have come, shewing that these people were not only wrong, but inconsistent: then a new sentence must have followed, declaring that space being infinite, as even the stoics admitted, matter as proved above must be infinite likewise, *Ne* cet. 1102 *volucri* a natural metaphor: so IV 205 *volucri levitate* of the inconceivable speed of his idols; VI 173 *volucri lumine*: Shakespeare has *the volant speed of flame. moen. mundi*: see n. to 73: the ether being outside would go first, then heaven and air, then earth and all in it would follow and be commingled in the ruins of heaven. 1105 *penetr. templa*, the innermost quarters, i. e. farthest removed from us: it means therefore that the whole heaven would tumble in on earth and be mixed in wild ruin:

Virgil has *tectis*, and *adytis penetralibus*; Cicero *penetrales focos*: elsewhere in Lucr. *penetralis* is *qui penetrat*. 1107 *rerum* here seems to be everything in and on the earth; so that the atoms of these *res* and of heaven are mixed up with those *omnis terrae*. 1108 *Corpora*, i.e. prima, *solventes*: VI 235 *soluens differt primordia vini*: dissolving the union of the atoms; the word more commonly signifies breaking up the thing itself. Lucan II 290 *cum ruat arduus aether, Terra labet, mixto coeuntis pondere mundi*. 1109 Plaut. rud. 1287 *de bonis quod restat reliquiarum*. 1111 *parti* recurs III 611, IV 515, VI 694, 721; corp. inscr. Lat. vol. 1, 206 25 and 27 *in partei*: 198 51 *parti*: the accus. *partim* is found VI 88, 384 and 661: the adv. *partim* is really this accus.; see n. to 20. 1112 *ianua leti* recurs V 373.

1114—1117: master fully what has been said, and the whole of nature will soon be revealed to you. 1114 see notes 1: *par. op.* =*parva opera* or *labore*: Hor. epist. I 7 8 has *opella forensis*: no other example of the word is quoted; later writers have *operula*.

BOOK II

1—61: sweet though it be to see from a place of safety the storm-tost sailor or the battling soldier, far sweeter is it from the heights of philosophy to look down on men lost in error and struggling for power and wealth: what blindness not to see how little is wanted to rid us of pain and bring us every innocent pleasure; often merely fresh air and fine weather, not palaces nor banquets! can purple cure a fever? It is not wealth or birth or power, no nor armies and navies that can free us from fear of religion and death, and all the cares of life: reason alone can deliver us from all such empty terrours. 1 and 5 *Suave*; so *pote* and *nec mirum* more than once: these neuter adjectives are rare exceptions to the usage of Lucr. as of the older writers generally, not to omit the subst. verb. *m*[illegible] the abl.: obs. *magno* and 2 *magnum*, and 27 28 *auroque au*[illegible]d 48 49 *metus metuunt*, and 54—59 *tenebris tenebris tenebris* [illegible] 1 comp. Archippus Mein. com. Gr. frag. II p. 727 Ὡς [illegible]ου [illegible]λαττα ἀπὸ τῆς γῆς ὁρᾶν, Ὦ μῆτέρ, ἐστι μὴ πλέοντα μηδαμῶς; and [illegible]ad Att. II 7 2 *Nunc vero cum cogar exire de navi, non abiectis sed ereptis gubernaculis, cupio istorum naufragia ex terra intueri; cupio, ut ait tuus amicus Sophocles*, κἂν ὑπὸ στέγῃ Πυκνῆς ἀκούειν ψεκάδος εὐδούσῃ φρενί: comp. the whole frag. from the tympanistae, esp. τοῦ γῆς ἐπιψαύσαντα, which further illustrates Lucr.: it appears therefore to be a common proverb, the

hardness of which he tries to soften by the explanation of 3: Hor. epist. I 11 10 *Neptunum procul e terra spectare furentem.* 4 *quibus malis careas* = *ea mala quibus careas*, the mood depending on the general turn of the sentence. 8 *doctrina sap.* is governed by *munita*; *munita* has at once its literal meaning, as in *arx munita*, and the common metaphorical one, as in Cic. de div. I 45 *sapientia munitum pectus*: the somewhat involved sentence gives an awkwardness to the epithets; since even in prose *serena templa, edita, doctrina sapientum munita* would be natural enough. Lucr. may well have been thinking of Aristoph. clouds 1024 Ὦ καλλίπυργον σοφίαν κλεινοτάτην ἐπασκῶν, for it is a play he would have been likely to enjoy, and I find other points of resemblance: comp. II 1100 foll. and VI 387—422 with clouds 395—402; and VI 124—131 with clouds 404—407; and IV 131—142 with clouds 346 foll. 7 foll. often imitated, as Ciris 14 *Si me iam summa sapientia pangeret arce... Unde hominum errores longe lateque per orbem Despicere atque humiles possem contemnere curas*; Ovid met. XV 147 *iuvat ire per alta Astra...Palantesque animos passim ac rationis egentes Despectare procul* cet. 9 *Despicere* here, as in Ciris, to look down with scorn upon: see notes 1 to IV 418 *Dispicere.* 12 13 *Noctes...opes* repeated III 62. 13 *rer. potiri*, and 50 and III 1027 *rerum potentes* appear to be most general expressions for supreme power of any sort: see Forc. s. *potiri*, whose first example is *Cleanthes solem dominari et rerum potiri putat.*

16 *hoc aevi quodc.* = omne hoc aevum: see Freund s. v. *quicumque. nonne videre*: this infin. of indignation is quoted by Donatus to Ter. Phor. II 1 2 *Nec meum imperium ac, mitto imperium: non simultatem meam Revereri saltem*: see Lach. who abundantly illustrates it from Cicero and others: add Plaut. Bacch. 151 *Magistron quemquam discipulum minitarier?* and 629 *Criminin fidem me habuisse?* Livy IX 11 12 *haec ludibria religionum non pudere in lucem proferre et vix pueris dignas ambages senes ac consulares fallendae fidei exquirere!* the idiom is very common. 17 *latrare*: Enn. ann. 570 *animus cum pectore latrat*, and Paulus Festi *latrare Ennius pro poscere posuit*; Hor. sat. II 2 17 *cum sale panis Latrantem stomachum bene leniet.* 18 *mente fruatur Iuc. sensu*: comp. Cic. de fin. III 37 *quis est...qui nulla animo adficiatur voluptate*: see n. to I 183. 17—19: thus Epicurus himself after much more to the same purpose says to Menoeceus, Diog. Laert. X 131, that the pleasure which is his end is τὸ μήτ' ἀλγεῖν κατὰ σῶμα μήτε ταράττεσθαι κατὰ ψυχήν. 21 22, if mss. are right, the constr. must be *uti, quaecumque demant dolorem, ea possint substernere delicias quoque multas*: Epicurus himself says l. l. 133 τὸ τῶν ἀγαθῶν πέρας ὡς ἐστιν εὐσυμπλήρωτόν τε καὶ εὐπόριστον: most so-called pleasures only cause bodily pain and prevent genuine pleasure: the absence

of pain is the foundation of all pleasure; and a very small positive addition of pleasure will be all that is required. At the same time *quemque*, the reading of Lamb. and others, is manifestly simpler: few things are needed, ut et omnem dolorem demant et voluptates quoque multas dent. 22 *substernere* appears to have much the same force as the simple *sternere*: the *sub* perhaps has the meaning it sometimes has in *subministrare* and *submittere*, of a successive or continued supply.

23 *ipsa* seems to mean, nature for her part, as far as she is concerned, though habit and fashion may need something else. 24 foll. after Odys. η 100 χρύσειοι δ' ἄρα κοῦροι ἐυδμήτων ἐπὶ βωμῶν Ἕστασαν αἰθομένας δαΐδας μετὰ χερσὶν ἔχοντες, Φαίνοντες νύκτας κατὰ δώματα δαιτυμόνεσσιν: it is quite possible that these vss. of Homer may have suggested the fashion to wealthy Romans. 27 *fulgēt*: v 1049 *scirēt animoque* is the only other instance of this licence in Lucr. which is much more frequent in Virgil: there is no analogy between this practice and the lengthening of such syllables in Ennius: with him they were really long, and in thesis as well as arsis, *uter essēt induperator* and the like; where *essēt* is as long as *esses*: in Lucr. and Virgil the lengthening is a mere licence permitted in the arsis alone. 28 why an editor should object to *aurata* in Lucr. because *auro* occurs in 27 I do not comprehend: see n. to 1 *magno* and *magnum*: the gilding of the *lacunaria* was a necessity with the Romans; the custom is spoken of by Virgil Horace Tibullus Propertius Ovid Lucan Seneca Statius Val. Flaccus the Anthologia Livy Pliny Appuleius Prudentius: it is specially recorded that Pollio did not gild the ceiling of the public library which he built, to spare the eyes of readers. The *auro* of 27 may refer to walls furniture and plate. The imitation of our passage in the culex 61 foll. *Si non Assyrio* cet. has 62 *si nitor auri Sub laqueare domus*, shewing that the writer found *aurata* in Lucr. The general tone of these vss. is also imitated by Virg. geor. II 461 *Si non ingentem foribus domus alta superbis* cet. 29—33 almost repeated v 1392—1396. 29 *Cum tamen* cet. comp. 690 *cum tamen inter se versus ac verba necessest Confiteare* cet.; III 645 *cum mens tamen...non quit*; VI 140 *cum tamen...haurit*; Aen. IX 513 *cum tamen omnis Ferre iuvat subter densa testudine casus*; X 509 *Cum tamen ingentis Rutulorum linquis acervos*. The sequence of the whole sentence is this, *neque natura interdum requirit gratius...Si non sunt...Nec... Nec..., cum tamen...curant*: the *cum* refers to *natura requirit*; the *tamen* refers to the *Si non*: nature wants no more, when they thus simply enjoy themselves none the less although they have none of these luxuries: at least 23 appears to me to be a single clause, *neque nat. req. gratius*; but as Lach. to v 1052 says 'poetas vetustos ante Catullum *neque* aliis vocabulis non subiunxisse', he must surely have taken it

to be, gratius est, neque nat. requirit: a very forced construction. With 29—33 comp. culex 67 *at pectore puro Saepe super tenero prosternit gramine corpus, Florida cum tellus gemmantes picta per herbas Vere notat dulci distincta coloribus arva*: the *picta* is nearer the *pingebat* of v 1396; and v 461 and other passages are likewise here imitated. 30 *Prop. aq. riv.* is also found in the culex 388 and Virg. ecl. VIII 87. 34 Lamb. compares Hor. epist. I 2 48 *Aegroto domini deduxit corpore febres*, where *deduxit* is the active of *decedunt*. 35 *text. pict.*: Cic. Verr. IV 1 *nego ullam picturam neque in tabula neque in textili fuisse quin* cet.; Aen. III 483 *Fert picturatas auri subtemine vestes ...Textilibusque onerat donis.* 36 *Iacteris*, the potential, is quite in Lucretius' manner: 1000 *Quae...si teneas, natura videtur*; IV 992 *Iactant, Mittunt, redducunt, Ut vestigia si teneant*; 1069 *gliscit furor atque aerumna gravescit, Si non...conturbes*, and the like: but what is surprising here is to find it joined with *quam si cubandum est.* Lamb. therefore, an exquisite Latin scholar, tacitly read *Iactaris* in ed. 2 and 3. If the potential is correct, as I believe it to be, Lucr. may have looked upon the gerundial *cubandum est* as equivalent to a potential, which indeed it appears to be; but comp. Ter. Phorm. 824 *Ego nullo possum remedio me evolvere ex his turbis, Quin, si hoc celetur, in metu, sin patefit in probro sim*: see also n. to III 948 *si pergas.*

39 *Quod superest*: see n. to I 50. *putandum*: see n. to I 111. 40 *Si non forte...effugiunt* = nisi forte eff. *campi* is of course the *campus Martius*: Caesar after his consulship remained with his army for three months before Rome and was bitterly attacked by Memmius: does Lucr. here allude to Caesar? 41, and below, *Fervere...Fervere* applied here to the persons and things causing the crowd and bustle: by Varro Virgil and others, see Forc., to the places or things filled with the crowd or bustle, *fervere omnia piratis, Leucaten, litora, fora litibus* and Lucr. himself IV 608 *Omnia* [loca] *quae circum fervunt*: with *fervere classem* comp. Attius 482 *classis adit occluditur Fervit. Fervĕre*: so Virgil: the older form; comp. Lucilius' *Fervit aqua et fervet; fervit nunc, fervet ad annum*, which seems strange to Quintil. I 6 8: l. l. *fervunt*: so v 1095 *fulgĕre*; and *fulgit*, 'it lightens', more than once; yet Lucr. also knows the 2nd conjugation: see n. to VI 160 and 213. 41 foll. *cum videas, statuas, cum videas*: this use of the temporal *cum* or *ubi* with a pres. potential, to signify a repeated action, 'any time that', or 'every time that', is common enough in Lucr. and the older writers: II 847 *Sicut amaracini...liquorem Et nardi florem...cum facere instituas, cum primis quaerere par est*; III 735 *his esto quamvis facere utile corpus, Cum subeant*; 854 *cum respicias inmensi temporis omne Praeteritum spatium*; IV 572 *Quae bene cum videas, rationem reddere possis*; V 62 *simulacra solere in somnis fallere mentem, Cernere cum*

videamur eum cet.; 681 *Et minui luces, cum sumant augmina noctes*; III 870 *Proinde ubi se videas hominem indignarier...Scire licet* cet.; V 100 *Ut fit, ubi insolitam rem adportes auribus*: but II 829 he chooses to say *Ut fit, ubi in parvas partis discerpitur austrum*; VI 900 *Nonne vides etiam, nocturna ad lumina linum Nuper ubi extinctum admoveas, accendier.* With these comp. Plaut. pseud. 142 *At faciem quom aspicias eorum, haut mali videntur*: Ter. eun. 659 *Virgo ipsa lacrimat neque, quom rogites, quid sit audet dicere*; 838 *Vide amabo si non, quom aspicias, os impudens Videtur*; adel. 739 *Ita vita est hominum, quasi cum ludas tesseris*; Cato de re rust. 90 *cum far insipiat, puriter facito*; Catull. XXII 9 *Haec cum legas tu,...Suffenus unus caprimulgus aut fossor Rursus videtur*; Plaut. Bacch. 63 *Eadem in usu atque, ubi periclum facias, aculeata sunt.* 41 Aen. V 674 *belli simulacra ciebat*; 585 *pugnaeque cient simulacra*; Livy XL 6 5 *divisas bifariam duas acies concurrere ad simulacrum pugnae.* 42 the *subsidia* being in support in the rear; the cavalry on each flank. 43 comp. Plaut. Bacch. 941 *hoc insunt in equo milites Armati atque animati probe.* 44—46 Lamb. cites Varro ap. Nonium p. 379 *Non fit thesauris, non auro pectu' solutum, Non demunt animis curas ac religiones Persarum montes, non atria diviti' Croesi.* 51 *fulgorem ab auro*: not unlike is Livy VIII 29 13 *ingenti ardore militum a vulnerum ira*: see Madv. emend. Liv. p. 170, who cites XXIV 30 1 *tanto ardore militum ab ira*: comp. too Ter. Andr. 156 *ab illo iniuria*; Plaut. Bacch. 528 *a me nuntius*; also *Turnus ab Aricia, pastor ab Amphryso, nostris ab ovilibus agnus, a fontibus undae, ab Andria ancilla* and the like: Val. Flaccus V 242 expands Lucr. *tum falso fusus ab auro Currere per summi fulgor laquearia tecti*: *ex* is used in the same way I 1086 *magnasque e montibus undae*; Tac. ann. I 35 *cicatrices ex vulneribus*; and *de* VI 386, *de caelo fulminis ictus.* 52 *purpureai*: III 689 *gelidai*; IV 537 *nigrai*: he elsewhere avoids this archaism in adjectives, frequent as it is in substantives. 53 *haec rat. pot.*: V 42 *Quas loca vitandi plerumque est nostra potestas*: here *haec potestas*, i. e. of conquering religion and the fears of death etc. *est omnis*, i. e. omnino, *rationis*: Forc. s. v. cites Ter. heaut. 720 *quasi non ea potestas sit tua*; and Cic. ad Att. XVI 16 15 *praesertim cum tota potestas eius rei tua sit, ut* cet.: but the use is common enough. 54 *laboret*, a favourite word occurring some ten times in this sense. 55—61 recur III 87—93, VI 35—41: the three last came I 146—148: see notes there. 55 56 quoted by Seneca epist. 110 6, who adds *quid ergo? non omni puero stultiores sumus qui in luce timemus? sed falsum est, Lucreti, non timemus in luce, omnia nobis fecimus tenebras*: but this is precisely what Lucr. says 54 *Omnis cum in tenebris* cet.: we make of the light of day thick darkness.

62—79: 'and now I will explain the motion of atoms, how thereby everything comes into and goes out of being: matter is not inseparably united; it is ever going to or coming from things: every individual is thus changing, while the whole remains the same'. 62 *Nunc age... Expediam* is thus used by Virg. geor. IV 149; but the phrase recurs also in Lucr. VI 495 and 738. *genitalia, gignant, genitas.* 65 *mobilitas* is his usual word for swiftness of motion: literally great power, facility of moving: he uses also *mobilis mobiliter* and *mobilius*: he has prob. selected the word for this technical purpose, because neither *velocitas* nor *celeritas* would suit the metre: *levitas* he also uses in the same sense. 67 *inter se stipata* has, like so many other terms we have noted in Lucr., a pregnant meaning, so massed together as not to admit of separation: I 345 *Undique materies quoniam stipata quiesset*: atoms are not united together, as the parts of each atom are united in the atom; I 610 *Quae minimis stipata cohaerent partibus arte.* 68 *materies* is of course here as elsewhere the collective term for atoms. 69 *fluere* in this sense of wasting, ebbing away is a favourite expression of Lucr. 79 *omnia* becomes here the object to *subducere.* 71 *summa* and 75 *rerum summa* have their proper sense of the whole sum or universe of things in being; but Lucr. illustrates what he means from what goes on in our world, in *haec rerum summa*, as is natural; for what takes place throughout the universe is more or less a repetition of what happens here: see n. to I 1008. 72 *cuique* is the [id] *unde abeunt* of 73, the *illa* of 74. 76 *mutua* is used as an adv. thus 5 or 6 times in Lucr.: V 1100 we have *mutua inter se*, as here: Virgil uses *per mutua*: Lepidus in Cic. ad fam. X 34 says, *summa studia officii mutuo inter nos certatim constiterunt pro nostra inter nos familiaritate.* The sense is that mortals receive life and in their turn give it to others, and so the chain of being goes on: comp. III 964 foll. 77 Ov. met. XV 420 *sic tempore verti Cernimus atque illas adsumere robora gentes, Concidere has.* 79 the well-known metaphor of the torch-race: Varro de re rust. III 16 9 *nunc cursu lampada tibi trado*; the καθάπερ λαμπάδα τὸν βίον παραδιδόντες of Plato.

80—141: First-beginnings, when alone, move ceaselessly through the infinite void by their own inherent motion or it may be after collision with another: some of intricate shapes form after collision a close union and thus help to compose hard bodies; others rebound to greater distances, and form softer bodies; some do not unite at all, but continue to wander through space: the motes in a sunbeam will give some notion of this: single atoms unite into small bodies, these small bodies form themselves into somewhat larger ones; till by little and little they become visible and are seen to move in the sun, though why they move is not seen. 80 foll. atoms, as we have seen, have weight as an inhe-

rent property, by which they move down space in straight lines at uniform speeds, until they come into collision with others: how that is possible, will be explained 216 foll. 80 *Si*: to begin a sentence thus abruptly with *si* is in the manner of Lucr.: comp. 1017, III 170, 406, 946, 1053, IV 1026, V 210, 319, 1334. κινοῦνται συνεχῶς αἱ ἄτομοι, says Epicurus himself in Diog. Laer. x 43. 84 this is the κίνησις κατὰ στάθμην or natural motion sheer downwards. 85 *ictu alterius*, the motion ἄνω κατὰ πληγὴν καὶ παλμόν: therefore he adds *forte*, because this motion is only casual. *cita* see n. to I 1001. *saepe*: see n. to V 1231. 88 *ibus*, a form common in Plautus: Lach. wrongly introduces it by conjecture into two other places; but it recurs I believe VI 1012: for demonstr. pron. connected with rel. of preceding v. see n. to I 718. *obstet*, as they are passing through void. 90 *reminiscere*, as proved I 958 foll. *totius summa*, another name for the *omne*. 91 for the position of *corpora* in the second clause see n. to I 15: with *neque habere ubi* comp. VI 1052 *neque habet qua tranet ut ante*. 92 foll. notice the poetical tautology to emphasise what he says, *sine fine modoque, inmensum patere; in cunctas partis* and *undique; ostendi* and *probatumst*. 94 *Pluribus ost.* I 988—1007.

96 *reddita* in this sense of assigned as a property or the like is very common in Lucr.: see 65 *Reddita mobilitas* cet.; also 142, 681, 758, I 203, 577, III 618, IV 178, VI 494. 97 *exercita*: 120 *Conciliis et discidiis exercita crebris*; IV 862 *exercita motu*. 98 *confulta* is a ἅπαξ λεγόμ.: if the word is right, which is somewhat doubtful, it must mean, resting and pressing one against the other, *mutuo fulta*: comp. Stat. Theb. VI 862 *diu pendent per mutua fulti Bracchia*: the abl. *magnis interv.* and 99 *brev. spatiis* and 101 *Exiguis int.* mean leaving great or small spaces between, with great or small spaces between: the great and small are of course relative merely, and have reference to the extremely minute atoms: the great distance would be inconceivably small in relation to anything of sensible magnitude. 99 *ab ictu*: Ov. met. XIV 352 *Ut primum valido mentem collegit ab aestu*. 102 *perplexis fig.*: 459 *perplexis indupedita*; 463 *e perplexis.. elementis*; 394 *hamatis inter se perque plicatis*; III 331 *Inplexis principiis:* the atoms are of shapes which are fitted to twine together: such atoms Epicurus himself in Diog. Laer. x 43 calls αἱ πλεκτικαί: being therefore πλεκτικαί, they get *perplexae*, intricately twined or matted together. Newton optics p. 251 says of his atoms 'the parts of all homogeneal hard bodies which fully touch one another, stick together very strongly': but he adds 'and for explaining how this may be, some have invented hooked atoms, which is begging the question'. 103 *radices*: these lay the first foundations or roots of stone. *fera ferri*: Cicero and Tibullus thus play with the assonance *ferus et ferreus*. 106 *longe longeque*, as 98 *magnis*, is of

course relative: far only in respect of the extremely small atom. 111 *etiam* seems clearly to have reference to *recepta*: quamvis recepta, tamen non potuere etiam consociare: comp. with this *sic deinde locutus* for *sic loc. deinde*, and the like, in Virgil. 112 *uti memoro* = ita uti eam memoro: IV 749 *Haec fieri ut memoro*. *simulacrum* and *imago* are exactly synon.: in IV he regularly uses *imago* in the sing. or *imaginibus*, *simulacra* in the plur. nom. and acc. for the εἴδωλα of Epicurus. 114 *Contemplator enim cum* recurs VI 189: Virg. geor. I 187 *Contemplator item cum*: IV 61 *Contemplator*. *cum..cumque*: I know no other example of *cumque* following *cum*. 115 curiously varied Aen. III 151 *qua se Plena per insertas fundebat luna fenestras*. 116 *per inane* seems loosely put for the air which serves as a place for these motes to move about in, and therefore is to them what the real *inane* is to the atoms: just below 151 he contrasts the air which is not *inane vacuum* with 158 the real *inane vacuum*: Aen. XII 906 *vacuum per inane* is still more loosely put for the air. 117 *lumine in ipso*: see n. to IV 736 *aere in ipso*. 118 *proelia pugnas* recurs IV 1009: Lach. well illustrates it by *pugnant proeliant*, *turbas lites*, *morbum mortem*, *donum praemium*, from Plautus and Terence. 119 *dare pausam*, like *dare motum*, *discessum*, *ruinam* and the like: it = facere pausam, facere finem: see n. to IV 41. 123 *Dumtaxat*: this curious word occurs in another of its senses 931: there it = *certe*, at all events: Cic. Brut. 285, cited by Hand Turs. II p. 33, *hoc recte dumtaxat* the word seems to mean, 'so far as it goes,' as here: III 377 it means only, so much and no more: a more usual sense. The new corp. inscr. Lat. will shew that it was a very old legal term, which passed into the common language. 126 *turbare* = turbari: so 438, V 502 and 504 and VI 370. 129 *ibi* in the sunbeams. 132 *a princ.* from the first-beginnings upwards: comp. 138. 137, if *quae porro* is what Lucr. wrote, not *proporro*, we might compare Aen. I 72 and 157 for the omission of *sunt*: I know no other instance of the rare *proporro* used for the simple *porro* or ἑξῆς. 138 *ascendit*, because what is invisible is said to be below our sense: III 274 *Nec magis hac infra quicquam est*, IV 111 *primordia tantum Sunt infra nostros sensus*. 141 depends on the prec. relative clause, as illustrated in n. to I 718. *app. ap.* see n. to I 826: this verb occurs ten times in Lucr. and is always spelt by our mss. *appareo*: so *apparo*, *appello* (both 1 and 3 conj.); but *adpetitur* and always *adpono*, *adporto* or *atporto*, in which words the separate force of the preposition continued to be felt: in exact conformity with this the new corp. inscr. Lat. vol. 1 has twenty times *appareo*, and also *apparitor*, proving that in the earliest times the prepos. had been assimilated in this common technical word: thus too in the twenty-one instances of *appareo* in Virgil all Ribbeck's mss. always have *app.* except M once, Aen. XI 605, misled by the usage of its age: comp. the sugges-

tive remark of Servius to Aen. I 616 '*applicat*: secundum praesentem usum per *d* prima syllaba scribitur: secundum antiquam orthographiam . . per *p*': yet in defiance of all this Wagner makes Virgil always to write *adpareo* and the like.

142—164: the sun rises, and the world is at once clothed in light; yet its rays are complex, not single, and do not pass through a void: how much more swiftly then must first-beginnings move? since they travel through a perfect void and travel singly, and each is one indivisible whole. 144 *Primum* cet.: Aen. IX 459 *Et iam prima novo spargebat lumine terras . . aurora*: so that Virgil seems, as Lach. remarks, to have understood *primum* of time, not of order: how Lucr. meant it, is not easy to say. 145 *var. vol.*: see n. to I 589. 146 *tenerum*: see n. to I 207. *liquidis voc.*: IV 981 *citharae liquidum carmen*; V 1379 *liquidas avium voces*. *loca*: Virg. geor. IV 515 *et maestis late loca questibus implet.* 148 *Convestire*: Cicero in his Aratea uses I find *convestire* or *vestire* 5 times of light: Lucr. has prob. borrowed this, as many other expressions, from him: Aen. VI 640 *lumine vestit*: par. lost III 10 *as with a mantle didst invest.* 152 *aerias quasi . . undas* i. e. the air which offers a resistance like waves of water. 155 there is at once an internal and external hindrance to absolutely swift motion. *inter se retr.* they pull and are pulled back, because in one ray there is an enormous number of atoms combined. *extra*: see 151. 156 *Officiuntur*, the only instance in Lucr. where a verb which governs a dat. in the active, has a personal passive: he twice uses the part. *offectus*, IV 763 V 776. The licence appears to be altogether very rare: Horace has *imperor* and *invideor*; Ovid trist. III 10 35 *Vix equidem credar.* 158 *Cum...foris* is in contrast with 151 *Non per . . undas*; 159 *ipsa...feruntur* with 153 *Nec singill....ire*: there can be no doubt therefore that 159 *ipsa, suis e partibus una* refers to the *primordia*, each one of which is a *unum suis e partibus*, that is one indivisible whole of parts which are absolute leasts and incapable of existing alone, as we have explained so fully I 599 foll.: with *suis e partibus una* comp. III 545 *contracta suis e partibus* [anima]: he could hardly without an awkward periphrasis have expressed what he means without using the plur. *una*; nor is it any harsher than Cic. pro Flacco 63 *unis moribus et numquam mutatis legibus vivunt.* *ipsa, una e* = ipsa, quorum quicque est unum e. 160 only means that they race perpendicularly down space, so as to continue the direction they have once taken, *in unum locum, in quem coepere* [ferri]. 163 164 recur IV 207 208. 163 *Multiplex*, many times as much, *πολλαπλάσιος*. 164 *pervolgant* = I 4 *Concelebras.* Epicurus says himself in Diog. Laer. X 46 *ἡ διὰ τοῦ κενοῦ φορὰ κατὰ μηδεμίαν ἀπάντησιν τῶν ἀντικοψάντων γινομένη πᾶν μῆκος περιληπτὸν ἐν ἀπερινοήτῳ χρόνῳ συντελεῖ.*

[redacted]

165—183: 'they are greatly mistaken who think that the course of nature could not go on, nor the products of the earth and the race of men be continued without divine providence: nay I might prove from the imperfection of this world that it is not divinely created.'— That these vss. have no proper connexion with what precedes or follows; that 184 continues the argument as it was left at 164; and that in a finished composition 183 and 184 could not stand side by side, has been demonstrated by Lach. He shews with as much certainty as if he had had the poet's ms. before him, that 165—183 must have been a subsequent addition which the author's death prevented him from adapting to the context: in this state the first editor must have introduced them into the body of the poem. Lach. has also proved that v 195—234 which fulfil the promise of 182, are likewise a subsequent addition; as well as the cognate argument IV 823—857, where the doctrine of final causes in respect of the bodily organs is so earnestly denied. On these and similar sections of the poem see what is said above p. 21 22, where I attempt to carry Lachmann's argument somewhat farther. Some vss., as is said in notes 1, are clearly wanting before 165: whether they ever existed in the poem and were not rather lost before it came into the first editor's hands, we may well doubt with Lach. The way in which the latter supplies the meaning of what is wanting, seems to me however somewhat awkward: I should be disposed to make the gods the subject to *persectari* and *videant*, and to take the reasoning to be something like that in Cic. de div. II 105 foll. where it is said *negant* id esse alienum maiestate deorum. *scilicet causas omnium introspicere, ut videant quid cuique conducat.* [You must not suppose that the gods have anything to do with the motions and unions of these atoms: nay it would not be even consistent with their majesty and happiness to be tormenting themselves with all these minutiae,] 'and to be following up the course of every single atom to see how everything goes on.'

165 *persectari* recurs IV 1010, and appears to be peculiar to Lucr. 167 *quidam*: the stoics are doubtless pointed at, perhaps also the academics. 169 *admoderate* seems also peculiar to Lucr.: Gronov. observ. III 5 compares the *attemperate* of Ter. Andr. 916 which has precisely the same sense. 171 *Et iam cetera* appears to be used almost absolutely, as *cetera*, *et cetera* are in so many ways: *fieri* or *naturam facere non posse* may be understood from the context. 172 173: these two vss. are connected with the relative clause, as in some of the instances given in n. to I 718. 172 *deducit*, metaphor from leading the bride to her husband: comp. I 96 *Deductast* and n. there. 173 *blanditur propagent* harshly said for *blandiendo hortatur ut prop.* as Lach. observes: he compares Vitruv. pref. to III. 174 *quorum* i.e. *hominum*, understood from *genus hum.*: see n. to IV 934. 175 *omnibu' rebus* is

so used by Cicero, as div. in Caec. 61 *tu, cum omnibus rebus inferior sis, hac una in re* cet. *ego, si superior omnibus rebus esses, hanc unam ob causam* cet.: similarly III 1026 *Qui melior multis quam tu fuit, improbe, rebus.* 177—181 recur, slightly altered, V 195—199. 179 *reddere*: see n. to I 566 *reddi.* 181 *stat.*: Lach. cites I 564 *Stare*, and, a doubtful instance, VI 1058 *Pondere enim fretae partim stant*: comp. too Aen. III 210 *stant nomine dictae*; and Lucr. II 843 *manere*, VI 1274 *templa manebant.* *constare* is much more usual with Lucr. in this sense.

184—215: you are to know too that nothing naturally mounts upwards: flames and the growth of crops and trees are only apparent exceptions: thus blood from a wound spirts up; and a log forced down into the water starts up again; yet we know these things tend downwards by nature: so it is with flame: observe meteors and the like falling to earth; the rays of the sun tending downwards; lightnings flying about and falling to the ground: this is their natural tendency.—This argument is well and clearly put by Lucr.: it is directed against the stoics: see notes to I 1083 foll. where the same teachers are refuted; and the same false instances of fire crops and trees are cited. 184 *Nunc locus est*: Virg. geor. II 177 *Nunc locus arvorum ingeniis*: *est* being omitted, as so often by him compared with Lucr. 187 *flam. corp.* a mere periphrasis for *flammae*: *corpora* are not here the *prima corpora.* *tibi dent fraudem* = Cicero's *facere fraudem alicui*: see n. to IV 41. 188 *aug. sum.* recurs V 681. 191 *subsiliunt*: Cicero in setting forth this stoical doctrine Tusc. disp. I 40 uses the word *subvolent.* 192 *degustant*: so he himself, Virgil and Horace apply *lambere.* *tigna trabesque* here and VI 241 are used in their restricted sense: *tigna* the rafters let into the *trabes* or main beams: 196 they are used generally for any large pieces of timber. 194 *Quod genus* or *quod genus est*, an antique phrase which he and the auctor ad Herennium often use: the latter appears always to omit *est*: this makes Lachmann's insertion of it here and elsewhere still more unjustifiable: here and in the auctor ad Heren. it means no more than *velut.* 196 *Nonne vides*: Lamb. notices his fondness for this phrase. 200 *plus parte* = plus iusta parte or as he says himself IV 1231 *plus parte aequa*; i. e. it starts farther out than it would be, if left alone: Ovid trist. III 3 16 *Et plus in nostro pectore parte tenes*; V 10 29 *simul nobis habitat discrimine nullo Barbarus et tecti plus quoque parte tenet*: in all these places it may mean *plus dimidia parte*; as I 617 *pars*; and Germanicus Caesar Arat. phaen. 588 *Bootes In terras abit et noctis plus parte relinquit*: he means clearly more than half of night, though the expression of Aratus 583 is very obscure, πλεῖον δίχα νυκτὸς ἰούσης: Cicero 364 translates *recedit Post mediam labens claro cum corpore noctem.* *multis, omnibus partibus* are also very indefinite in meaning. Ovid met. III 43 has then

the fuller form, *media plus parte leves erectus in auras.* 202 *deorsum* trisyll.: 205 dissyl.: so with *seorsum* and *seorsus*: he also uses indifferently the form *sorsum*: see n. to III 631. 206: so V 1191 *Noctivagaeque faces caeli flammaeque volantes*: comp. Virg. geor. I 366 *noctisque per umbram Flammarum longos a tergo albescere tractus*; Lucan I 527 *caeloque volantes Obliquas per inane faces* may have had this v. and 213 in his mind. 209 *stellas et sidera* seem synon. as V 1191 *faces* and *flammas*. 211 *lum. cons. arva* means perhaps no more than Virgil's *spargebat lumine terras*; though Arist. poet. 21 mid. says τὸ τὸν καρπὸν μὲν ἀφιέναι σπείρειν, τὸ δὲ τὴν φλόγα ἀπὸ τοῦ ἡλίου ἀνώνυμον· ἀλλ' ὁμοίως ἔχει τοῦτο πρὸς τὸν ἥλιον καὶ τὸ σπείρειν πρὸς τὸν καρπόν, διὸ εἴρηται σπείρων θεοκτίσταν φλόγα. 213 *transversos* and therefore not tending upwards. 214 *abrupti*: see n. to I 724: Macrob. compares Aen. III 199 *ingeminant abruptis nubibus ignes.* 215 *concursant* here = discurrunt, its usual sense; III 395 *concursare* = concurrere, to clash. Observe in this passage the frequent assonance alliteration and redundancy of expression by which the poet seeks to give emphasis to his argument, to which he not unnaturally attaches much importance, as refuting his chief adversaries: *sursum ferri sursumque meare*; *sursus versus.. Et sursum* answered just after by *deorsum*; *vi* recurring four times within five lines; *Emicat exultans*; 196 *tigna trabesque*; *magna vi multi.. aegre*; *sursum revomit, remittit*; *emergant exiliantque*; *sursum succedere* answered by *deorsum deducere*; *stellas et sidera.*

216—224: know too that atoms while travelling down space in parallel straight lines, at quite uncertain times and spots swerve from the perpendicular to an imperceptible amount.— This is the famous κίνησις κατὰ παρέγκλισιν of Epicurus. My general remarks on the theory will be reserved for 292. Cicero de fin. I 19 puts it very clearly, *deinde ibidem homo acutus, cum illud occurreret, si omnia deorsum e regione ferrentur et, ut dixi, ad lineam, numquam fore ut atomus altera alteram posset attingere, itaque attulit rem commenticiam: declinare dixit atomum perpaulum quo nihil posset fieri minus; ita effici complexiones et copulationes et adhaesiones atomorum inter se, ex quo efficeretur mundus omnesque partes mundi quaeque in eo essent*; and comp. de fato 22. 217 *corpora* = of course *prima corpora.* 217 and 226 *rectum per inane* = *recte* or *ad lineam per inane*: *rectum* is used as *primus*, *postremus* and the like are so often used for their adverbs: see n. to 1080 and III 250 *postremis datur ossibus*: Cic. l. l. uses *recte* and *ad lineam* to express the same thing: VI 689 *rectis ita faucibus eicit alte*; IV 550 *rectoque foras emittimus ore*: comp. Aen. VI 900 *Tum se ad Caietae recto fert litore portum*, and VIII 57 *recto flumine ducam*: in the sentent. Minuc. corp. inscrip. Lat. I 199 *sursum rivo recto, inde recto rivo, sursumvorsum iugo recto, susum iugo recto, sursum iugo recto* (six times), *iugo recto, deorsum*

iugo recto, dorsum iugo recto are all found. 218 *pond. propr.*: Lach. to VI 574 illustrates this use of *pondera* for the equilibrium of a thing, from Ovid met. I 13 *pendebat in aere tellus Ponderibus librata suis*, and Lucan I 57 *librati pondera caeli*; but Turnebus and he are quite wrong in asserting that *pondus* is not so used in the sing.: see my note there. *ferme*: see n. to I 14 *ferae*. 219 *Inc. loci sp.* is repeated 260 and 293 in this form *Nec regione loci certa*: comp. 163 *Multiplexque loci spatium*. *decellere* = declinare; as VI 573 *recellit* = reclinat: *decellere*, though a ἅπαξ λεγόμενον, appears a certain correction. *paulum*, *Tantum quod momen mutatum d. p.* is well expressed by Cic. l. l. *perpaulum quo nihil posset fieri minus*. 220 *Tantum quod*, just and only just, is common in Cicero, but he seems to use it of time, *tantum quod.., cum* cet. *momen*, which as we have said to I 435 Lucr. uses for *momentum*, here signifies the ῥοπή or inclination of the balance. *possis* is here the potential: see n. to I 327. 223 *Nec* cet. as expl. in what follows. The atoms would have gone on for all eternity to descend in parallel lines with equal velocities. Lucr. does not tell us whether every atom thus swerved at some time or other; nor whether an atom could thus swerve only once; and Cicero seems not to know what Epicurus taught on this point.

225—250: you must not think that the heavier can overtake the lighter atoms and so give birth to things: a heavier thing falls more quickly than a lighter through water or air, because these offer unequal resistance to unequal weights: not so with void which yields to light and heavy alike: nothing therefore can account for the first collision of atoms except this declination; which must be the least possible, that we may not attribute to them oblique motions. 225 *potesse*: see n. to I 665. 228 *reddere* in Lucr. often means simply *dare* or *edere*; and so I have understood it here, though it is possible the sense may be 'render the motions begetting': but comp. 890 *vitalem reddere sensum*, which seems quite parallel. 232 *tenuis* seems to be a nomin. as I 281 *mollis*. 236 237 almost the same as I 1079 1080. 238 *quietum*, a poetical epithet implying that it can offer no resistance active or passive. 239 comp. I 1076 and Epicurus there quoted. 240 fol.: hear Epicurus himself in Diog. Laer. X 61 *ἰσοταχεῖς ἀναγκαῖον τὰς ἀτόμους εἶναι, ὅταν διὰ τοῦ κενοῦ εἰσφέρωνται μηδενὸς ἀντικόπτοντος· οὔτε γὰρ τὰ βαρέα θᾶττον οἰσθήσεται τῶν μικρῶν καὶ κούφων, ὅταν γε δὴ μηδὲν ἀπαντᾷ αὐτοῖς· οὔτε τὰ μικρὰ τῶν μεγάλων, πάντα πόρον σύμμετρον ἔχοντα, ὅταν μηθὲν μηδ' ἐκείνοις ἀντικόπτῃ*. 244 *minimum*: so Cic. de fato 22 *tertius quidam motus oritur extra pondus et plagam, cum declinat atomus intervallo minimo, id appellat ἐλάχιστον*: the use of *minimum* or *ἐλάχιστον* here is quite analogous to that so fully discussed I 599 foll.: as there Lucr. and Epicurus spoke of the part of an atom as an absolute least, a thing the least possible, so small that it could not exist alone, and could not therefore

be looked upon as an individual thing; so here this motion of declination is so small, as not to admit of having the distinctive term 'slanting' applied to it: he thus hopes to escape the necessity of asserting that atoms can of themselves move obliquely. 248 *quod=quoad* or *quantum*: see Lach. to v 1033: so *quod commodo tuo fiat, quod potero, quod potes, quod sine iactura reipublicae fieri posset* in Cicero Terence Livy respectively. 249 *recta regione* seems unquestionably right; I cannot understand Lachmann's objections: comp. Livy XXI 31 9 *non recta regione iter instituit, sed ad laevam.. flexit*; Cic. Verr. v 176 *si qui tantulum de recta regione deflexerit*; and 181 *haec eadem est nostrae rationis regio et via*: in the sent. Minuc. corp. inscr. Lat. I 199 *recta regione*, in a direct line, twice occurs. 250 *sese* is harsh thus separated from *declinare*; but I now think it is what Lucr. wrote; as he has many such collocations of words, sometimes in order to produce a peculiar effect, sometimes from pure indifference: see the instances in n. to III 843 *Et si iam nostro sentit*; and comp. III 916 *Tamquam in morte mali cum primis hoc sit eorum*; 196 *Namque papaveris aura potest suspensa levisque Cogere ut ab summo tibi diffluat altus acervus*, to bring into relief the *papaveris*; v 65 *Ut mihi mortali consistere corpore mundum Nativomque simul ratio reddunda sit esse*: 572 *Forma quoque hinc solis debet filumque videri, Nil adeo ut possis plus aut minus addere, vere*, is very similar to our passage.

251—293: again if there is no such declination of atoms to break the eternal sameness of their motions, the perpetual sequence of cause and effect, whence have all living things freewill? whence can we change our motions at pleasure? thus horses cannot start in a race at once: motion has to spread from the heart through the limbs: thus too when we are carried along by an external force, there is something in us which resists, and enables us sometimes to stop: while the weight then of atoms enables *them* sometimes to withstand the external force of blows, it is only this declination of atoms at quite uncertain times and places which gives the mind its freedom of action. 251 foll. Cic. de fato 23 states this as the chief motive with Epicurus for devising this *tertius quidam motus extra pondus et plagam*: *hanc Epicurus rationem induxit ob eam rem, quod veritus est ne, si semper atomus gravitate ferretur naturali ac necessaria, nihil liberum nobis esset, cum ita moveretur atomus ut atomorum motu cogeretur.* 252 *ordine certo*, i.e. if they move straight down by inherent gravity and only change their motion by *plagae*, or collision with other atoms. 258 *progredimur* we men for instance among other living beings. Epicurus always passionately maintained the doctrine of freewill in opposition to the everlasting necessity of Democritus as well as most of the stoics, τῆς ἀιδίου κινήσεως μηχανώμενος ἐλευθερῶσαι καὶ ἀπολῦσαι τὸ ἑκούσιον, ὑπὲρ τοῦ μὴ καταλιπεῖν ἀνέγ-

κλητον τὴν κακίαν, says Plut. de repug. stoic. 34, p. 1050 C. 262 *rigantur*, spread over the body like so many *rivi*: comp. IV 907 *somnus per membra quietem Inriget* with Furius in Macr. sat. VI 1 44 *mitemque rigat per pectora somnum*. 263 *Nonne vides* cet. has suggested his simile to Virgil geor. III 103 *Nonne vides, cum...ruuntque effusi carcere currus* cet. *tempore puncto*, a favourite phrase of his: VI 230 *puncto in tempore*, with his usual fondness for *in* with the abl. of time: it=puncto temporis, while the smallest point of time is pricked down or marked. 264 *Carceribus* had their name from being prison-like vaults with gates in front, from which the chariots started: just as the *oppidum* above them had its name from resembling a fortified town. 265 *de subito* recurs III 643: see Forc. 267 *conquiri* i.e. be sought out and brought into communication one part with the other. 269 *corde* the seat of the *animus*. 270 *id* seems to refer to the preceding v.: *creatum hunc initum motus*; then perhaps *motum* alone is the subject of *dari*. 271 *Inde..porro*: Wak. compares Aen. V 600 *hinc maxima porro Accepit Roma*: I 461 *porro deinde* seems different; see n. there. *totum corpus et artus*: he has many such pleonasms; though this might be explained through the body generally and each of its parts: so *per membra per artus* and the like: IV 887 *quae in corpore toto Per membra atque artus animai dissita vis est*; 1042 *Per membra atque artus decedit corpore toto*: VI 797 *membra per artus Solvunt*; 945 *per omnia membra, per artus*. 272 *similest ut cum* seems like *similis ut si qui, tamquam si*, which occur in Cicero. *ictu* depends on *impulsi*. 285 foll.: see Cic. de fato quoted at 251: the passage tallies exactly with this; *pondus* and *plaga* denote there, as here, the natural and the impressed motion of atoms. 288 foll.: Lucr. too, like Cicero l.l., assigns the freedom of the will as the chief proof of the necessity of this third motion: the natural gravity of atoms gives them says Lucr. a certain independence and power of resisting extraneous force; but the mind itself can only escape from inexorable necessity and acquire freedom of action by this fitful declination of atoms. 289 *necessum est* is used several times by Lucr. as well as by Plautus and Livy: see Forc.: but Lach. to VI 815 justly observes that *necessum* used as it is here with an epithet is singular enough. 291 *ferri patique*: V 314 *perferre patique*, which Horace uses more than once, and Martial VII 39 3; Terence has *perferre ac pati*, Cicero *patietur perferet* and the like. 292 *clinamen*: see n. to I 435 and 653: it=*declinatio* or *inclinatio*.

This theory has naturally enough drawn down on Epicurus the scoffs of his many adversaries: *res tota ficta pueriliter*, says Cicero: the whole business is contradiction and ridiculous nonsense, echoes Bentley in his Boyle lectures. Even his friends have mostly here deserted him. Yet there is something grand and poetical in its very simplicity. He

wished, like other thinkers, to derive his system from as few first principles as possible: he saw in mind his atoms descending from all eternity in uniform blind motion. How then was existence possible? a sentient first cause was to him inconceivable. This *minimum* of declination then, this *perpaulum quo nihil posset esse minus*, rose before his reason and imagination, as the simplest theory which would solve the great problem of being, of the creation of this and all other worlds with all that is in them. What system-monger but somewhere or other reaches a point where reason must be silent or self-contradictory? In a curious memoir of the Berlin transactions for 1782 by G. L. Le Sage, called Lucrèce Neutonien, the author ingeniously argues that if Epicurus had had but a part of the geometrical knowledge of say his contemporary Euclid, and conceptions of cosmography the same as those of many then living, he might have discovered the laws of universal gravity, and not only the laws, but, what was the despair of Newton, its mechanical cause. Had he supposed the earth to be spherical and made his atoms move in directions perpendicular to the surface of a sphere, that is towards its centre, he might not only have proved the law of the inverse square of the distance, but have demonstrated the cause of that law. But the truth is Epicurus might probably have left his worlds to shift for themselves and let eternal time past take the place of a first cause, if he had not wanted this theory mainly as we have said to explain the great mystery of freewill: he wished to mark this as one of the cardinal points of difference between himself and Democritus whom Cicero praises for choosing to accept fate and necessity rather than have recourse to such a doctrine as this of Epicurus. It is for this reason that Lucr. dwells at such length and with such emphasis on this part of the question; out of respect for Democritus as well as opposition to the stoics.

294—307: the matter of the whole universe never was either more or less condensed than it is now: the motions which first-beginnings now have, they always have had and will have: what they have produced, they will again produce: the sum of things in being no force can change; for no new matter can escape out of the universe nor come into it and change the order of nature. 294 foll.: as his atoms are eternal, it is an axiom that none can come into being or go out of being: the sum of matter therefore must ever be the same. But perhaps the *Quapropter* cet. of 297 is not so self evident: as in any one part of the universe the motions etc. of atoms are constantly and necessarily changing, one does not see that the sum of their motions throughout the universe is the same; yet this is what Epicurus and Lucr. affirm: but see n. to 303. 296 *adaugescit*: in the use of this word Cic. prognost. frag. 3 has preceded him. 297 *in motu..in eodem*: see n. I 999. 300 *quae consuerint* i.e. ea quae, such things as: the subj. is quite in place,

though Lamb. objects to it. 301 *Condicione*: this spelling is now incontrovertibly fixed by reason and authority; *cond.* is related to *condicere*, as *dicio* to *dicere*: the latter point is proved by Cicero himself de leg. agrar. II 39, where he puts together *dicioni iudicio*, and then clearly implies that *dicere* is to *dicio* what *iudicare* is to *iudicium*: this at all events settles the classical spelling. 303 *Nec rerum summam* cet.: if the *Quapropter* cet. is true, then this would be true: the sum of all things in being, or of all worlds throughout the universe is ever the same: this or that world may or must come into and go out of being; but the whole sum will be the same. In fact it was a well-known dogma of Epicurus that innumerable worlds were daily coming into being and perishing; but here again they seem to be forcing consequences from the false premiss that all infinities are equal, the mother of so many paralogisms. And is not this in contradiction with the acute argument of I 551 foll.? where in language almost identical with what we have there quoted from Newton, he shews that the process of destruction is much more rapid than that of renovation. Well does not his reasoning here assume the contrary? this world of ours for instance took long ages to form; but, as he often repeats, it will some time or other dissolve in a moment into its first-beginnings. When then throughout the universe innumerable worlds are daily perishing and perishing instantaneously, and every new world must take long ages to build up, how can the sum of worlds remain constant? on *rerum summa* see n. to I 1008. 305 *quicquam est extra*: comp. V 361 *summarum summa est aeterna neque extra Qui locus est quo dissiliant neque corpora sunt quae Possint incidere*, and I 963 *extra summam quoniam nil esse fatendum*. Epicurus in Diog. Laer. X 39 says more generally *τὸ πᾶν ἀεὶ τοιοῦτον ἦν οἷον νῦν ἐστὶ καὶ ἀεὶ τοιοῦτον ἔσται· οὐθὲν γάρ ἐστιν εἰς ὃ μεταβάλλει, παρὰ γὰρ τὸ πᾶν οὐθέν ἐστιν ὃ ἂν εἰσελθὸν εἰς αὐτὸ τὴν μεταβολὴν ποιήσαιτο.*

308—332: though atoms are in constant motion, yet the whole universe appears to be at rest, because they are far beneath the ken of our senses: nay visible things often when seen from a distance seem to be at rest; as a flock of sheep feeding; or as an army of foot and horse, if looked down upon from a height. 309 *sint in motu*: an unusual rhythm; but *in motu* is to be taken metrically as one word; so always *inter se*, *inter nos* and the like. 310 *Summa..summa*: the play on words which he so loves. 311 *dat motus* = *movetur*; see n. to I 819: either the sun or moon or the clouds or any thing moving on the earth is an instance of such partial motion. 312 *infra* appears to be here an adv. *iacet infra longe a n. s.*: IV 112 the prepos. is used with the same force: *primordia.. Sunt infra nostros sensus.* 313 *Primorum*: IV 186 *e primis facta minutis*: see n. to I 55. 314 *iam*: it has precisely the same force I 601: *quod nostri cernere sensus Cernere iam nō-*

queunt: where see n.: and 613 *neque deminui iam.* *surpere*: Horace and Plautus also use this contracted form. 316 *diducta* i. e. from us. 318 *reptant* well expresses the slow regular advance of sheep as they are feeding. 319: v 461 *gemmantis rore per herbas*; culex 69 *gemmantis ..per herbas*: but there of flowers. 320 *coruscant*: Iuven. xii 6 uses it actively *frontemque coruscat*; Quintil. inst. viii 3 21 mss. give *coniscans.* 324 *bel. sim. ci.*: see n. to 41. 324 foll. Lucr. had more than one passage of Homer in his mind: Od. ξ 267 *πλῆτο δὲ πᾶν πεδίον πεζῶν τε καὶ ἵππων* Χαλκοῦ *τε στεροπῆς*, Il. T 362 Αἴγλη *δ' οὐρανὸν ἵκε, γέλασσε δὲ πᾶσα περὶ χθὼν* Χαλκοῦ *ὑπὸ στεροπῆς· ὑπὸ δὲ κτύπος ὤρνυτο ποσσὶν* Ἀνδρῶν, and B 457 and 465. 326 *Aere ren.*: Virg. geor. ii 281 *fluctuat omnis Aere renidenti tellus.* *supter* appears to be an adv.: for it would be harsh to join it with *pedibus*: and so I presume Lucr. understood *ὑπό* in Il. B 465 and T 363. 330 *Tramittunt campos*: this constr. is common in prose. 332 *consis. ful.* i. e. videntur consistere velut fulgor: comp. 322.

333—380; know too that these first-beginnings are of many different shapes: thus no two men or other animals are quite alike; thus a cow knows its calf among all other calves; thus kids and lambs run each to its own mother; thus every grain of corn, every shell is distinct. 333 *cunct. ex. rer.* = primordia rerum, the *cunctarum* being equivalent to *prima.* 335 *multigenis* appears to be a *ἅπαξ λεγόμ.*: it must come from *multigena*, as the *omnigenum* of Virgil from *omnigena*: see n. to i 683. 336 337 recur 723 724, and partially 692 694. 336 *parum multa* recurs several times: it and *parum saepe* are similarly used by Cicero: instead of being few, the atoms of each shape are infinite in number, as he soon after proves. 337 it is clear I think that *constant*, the proper mood after *quia*, and *constent* by attraction of the prec. subj. are equally good Latin: why I prefer *constant* in the three places on critical grounds, will be seen from notes 1: vi 71 *non quo violari summa deum vis Possit...Sed quia tute..Constitues..Nec..adibis*, which at least defends the indic. 341 *Debent* cet. I wonder Lucr. uses this argument: 522 foll. he proves that the atoms of each shape are infinite in number; what does he want then more than infinity? his other reasons are however more convincing. 341 *filo*: *filum* is properly thickness, as iv 88 *suptili praedita filo*; hence size as here, and v 572, 581, 589: see Lach. to v 571. 342 *mutaeque natantes*: see n. to i 258. 343: Plaut. rud. 942 *sine squamoso pecu.* 344, as *laeto* in the old writers (see Forc.) signifies to make glad, it seems best to take *laetantia* to mean making glad; it may however be synon. with *laeta.* 346 comp. 145. 347 *generatim* = 372 *Quique suo genere.* 348 *tamen* of course refers to the *quidvis*: comp. 371 *quodvis..tamen.* 351: see n. to 141. *cluere* = esse. 352 *delubra* seems here to have

its primary sense, the inner part of the temple where the statue of the god was, and the *arae* therefore to be within the temple. 353 *Tur. ar.*: Aen. IV 453 *turicremis cum dona imponeret aris*. 354 comp. Aen. IX 414 *vomens calidum de pectore flumen*. 359 *revisit Ad*: V 636 *ad hanc quia signa revisunt*; VI 1239 *visere ad aegros*: the constr. is common in the older writers. 360 *perfixa* seems a word peculiar to Lucr.: comp. III 305; VI 392. 361 foll. seem to have suggested to Virgil geor. III 520 *Non umbrae* cet. 362 *illa*, emphatic in a good sense; as I 82 *illa Religio*, in a bad. *sum. lab. ripis*: Hor. epod. 2 25 *Labuntur altis interim ripis aquae*; od. I 2 18 *vagus et sinistra Labitur ripa*; Ovid am. II 17 31 *Sed neque diversi ripa labuntur eadem*. 363 *sumptam* and *avertere* seem to make a good antithesis: a learned friend argues strongly for *subitam*, whether as an adj. 'emergent,' 'fitful' or as a partic. in the sense of *quae subiit*. I can find no instance of the adj. used with a meaning that would be suitable here. As for the partic. could I find such a use supported by any authority, I would gladly admit it. The use of passive participles from neuter verbs is confined within very narrow limits: in many cases the verb still admits of being transitive, as *suesco* and its compounds: this probably applies to *senectus* also and the like: see n. to III 772: or old usage has justified it; thus we say *occasus sol*, but *occisus homo*: Lucr. VI 491 has *inpensa* = quae inpendent; and this seems supported by Sen. Herc. Oet. 1592 *impensum ferrum*; but there must have been a close connexion between the neuters *pendeo impendeo*, and the actives *pendo suspendo* etc.: *suspensus* must have suggested itself to a Latin using *inpensus*. Yet in such cases use I grant is the sole *norma loquendi*. The friend alluded to produces *exita vita* from Festus; but then *exire* is often transitive, three or four times in Lucr.; and *exiri* is similarly used as a personal pass. by Vitruvius, cited to V 1330. *praeteritus* may be more in point; yet *praetereo* is often transitive. 365 *derivare.. animum*: it would not be easy perhaps to find an exact parallel to this expression. 369 *Balantum pecudes* after Ennius ann. 192: VI 1132 *pigris balantibus*: comp. *corpora pennipotentum*; *squamigerum pecudes* and the like. 370 *fere*: see n. to I 14 *ferae* (*fere*). 371 comp. 347: here also *tamen* answers to *quodvis*. 372 *Quique* is abl. of course: see Lach. and Madv. de fin. V 46; yet the use of *quisque* is often so arbitrary that I am not certain *quicque* will not stand here; though I am glad to leave the decision of so nice a question to two such illustrious scholars: it must be borne in mind that the mss. have *Quidque*, which is as far from *quicque* as from *quique*; so that in either case we have recourse to correction. 375 *mollibus* of the waves falling gently on the shore; not a general epithet of water, as I 281 *mollis aquae natura*: comp. Aen. IX 817 *ac mollibus extulit undis*. 377 *Quare* cet. proves, if proof were wanting,

that *Praeterea* in 342 cannot be right: it draws the conclusion from all the instances given above beginning with 342; and it would be ludicrous to include what precedes, that is, to assert 'therefore it follows that atoms must have different shapes, because I have declared that they must not all have the same shapes.' 380 *quaedam* here does not fully express the author's meaning: it appears to be an intentional understatement, to serve for the moment: he soon afterwards proves that the shapes, though not infinite, are very very many.

381—397: thus the fire of lightning can pass where earthly fire cannot, because it is formed of finer atoms: for like reasons light passes through horn, rain does not; wine runs easily, oil slowly through a strainer, because the elements of oil are larger or more hooked, and so cannot separate so readily. 383 *fuat* recurs IV 637 and is found in Virgil. 385 *magis* may belong to *Suptilem*; but it seems better to take it with *parvis*: comp. VI 225 *Hunc tibi subtilem cum primis ignibus ignem Constituit natura minutis mobilibusque Corporibus. figuris* are here the atoms themselves; as 679 *varias cohibere figuras*; also 682, 685, 817, III 190, 246, VI 770, 776: see n. to I 55 foll.: so Democritus gave the name of *ἰδέαι* or *εἴδη*, which Aristotle translates by *σχήματα*, sometimes to the shapes of atoms, sometimes to the atoms themselves. 388 *cornum*, a form found in Varro Ovid Gellius and others: see Freund s. v. 394 *perque pl.*: so *perplexis figuris* and *implexis principiis*: their being *hamata* makes them also *perplicata*.

398—407: honey and milk are pleasant to the taste, wormwood and the like nauseous; the former therefore consist of smooth, the latter of jagged atoms which tear a way into the body. 401 *Centauri*: IV 125 and Virg. geor. IV 270 have the form *centaurea*; the mss. of Pliny who often uses the word appear to give *centaurion* or *centaurium* for the nomin.: the latter is the form used here: it appears not to be found in Greek. *absinthi*, *Aegi*, *conchyli* are similar genitives of Greek words. 401 *pertorquent* appears not to be found elsewhere: the nomin. is *natura* twice repeated: this is less harsh than III 558. Virg. geor. II 246 *At sapor...ora Tristia temptantum sensu torquebit amaro* or *amaror*; par. lost X 569 *With hatefullest disrelish writhed their jaws.* 402 *rutundis* AB rightly here and elsewhere. 404 *quaĕ amara*: 617 *quĭ in oras*, IV 1061 *Nam sĭ abest*, V 7 *Nam sĭ ut*, 74 *quĭ in orbi*, VI 716 *quĭ etesiae*, 796 *sĭ odoratast*; so with monosyllables ending in *m*, 681 *sunt cum odore*, III 394 *Et quam in*, 1082 *Sed dum abest*, VI 276 *cum eo*: comp. Virgil's *An qui amant, te amice, o Alexi*; Horace's *Si me amas, cocto num adest*; Catullus' *tĕ in omnibus*. With this passage and with IV 615 foll. it would be worth while to compare Theophrastus de caus. plant. VI 6; de sensu et sensil. 65 66 67; all quoted by Mullach Democr. p. 217 foll. where it is explained at length out of what kind of

atoms the flavours γλυκύς, στρυφνός, ὀξύς, δριμύς, ἁλμυρός, πικρός are severally formed according to Democritus.

408—443: also what is pleasing or offensive to the other senses, to the hearing smell sight, must be formed of elements more or less smooth or rough respectively: again some bitter flavours have elements, not hooked, but slightly prominent: those of fire and cold are jagged, but in different ways as shewn by touch, which is the body's sense, whether it is affected pleasantly or unpleasantly, from within or from without. 408 *Omnia postr.* passing from taste to the other senses. *tactu* is here the dat. of *tactus*; and is quite synon. with *sensibus*, as it implies in its general meaning every way in which you can *tangere et tangi*: thus *tangere* I 643 is said of hearing, II 403 of taste, IV 674 of smell. Virgil ends geor. III 416 with *aut mala tactu*: but *tactu* there appears to be the supine. 412 *musaea*: this adj. appears peculiar to Lucr. at least in the senses in which he employs it: here it = musica; in I and IV it = simply *musarum*. *mele*: 505 *cycnea mele*; V 334 *modo organici melicos peperere sonores*. This v. is almost made up of Greek words. 413 *figurant*: IV 552 *Formaturaque labrorum pro parte figurat*, i.e. shapes the articulate words: here I presume putting the tunes into shape means to execute them. 416 *Et cum* and 420 *Et qui*: see n. to I 280. *croco Cilici*: culex 399 *Cilici crocus editus arvo*. *perfusa* in a liquid state, as described by Seneca Pliny and Martial. 419 *oculos* cet.: Tac. hist. III 39 *saevissima Vitellii vox qua se* (*ipsa enim verba referam*) pavisse oculos *spectata inimici morte iactavit*: comp I 36. 421 it is not easy to see how mere ugliness or hideousness of aspect implies roughness in the atoms: one could conceive a very ugly thing having a soothing effect, if applied to the eyes; while bright and beautiful objects may often *conpungere aciem*. 423 *principiali lev.* i.e. levore principiorum: comp. 425 *materiae squalore*. 426 *quae iam nec*: the force of *iam* is clear enough; which, when you come to them, you can no longer call either smooth etc.: comp. Cic. de fin. V 14 *praetereo multos, in his.. Hieronymum, quem iam cur Peripateticum appellem nescio*: it cannot have the meaning it has just after in 430, 431, 440, where particular instances are specified. 429 *Titillare .. sensus*: Cic. de nat. deor. I 113 *has leviores dicis voluptates quibus quasi titillatio* (*Epicuri enim hoc verbum est*) *adhibetur sensibus*; de fin. I 39 *si ea sola voluptas esset quae quasi titillaret sensus*; and other passages: Epicurus' own word γαργαλίζειν is often mentioned: he applied it to the slighter bodily pleasures. 430 *Faecula*: Hor. sat. II 8 9 *faecula Coa*: the *fecula* of A B and Lach. cannot be from Lucr. though before the end of the first century it became common to put *e* for *ae* in many words, *maereo aerumna paenitet* cet. 433 *tactus uterque* = tactus utriusque: Hor. od. II 17 8 *ille dies utramque Ducet ruinam*. 434 this point is put with emphasis

to shew the vast importance of touch; for not only can nothing *tangere et tangi sine corpore*, but conversely nothing can *sine tactu sentire*: all the senses are but different forms of touch; touch therefore is the body's sense, that is the sole and only sense, whenever the body has any feeling whatsoever: he then enumerates the different ways in which the body can feel: either something enters from without, and gives pleasure or pain; or something takes place in the body, and gives pleasure or pain; or thirdly the atoms in the body itself, before quiescent, are troubled by some collision and so disturb the body's feeling, as for instance when you strike any part of the body. 438 *turbant* neut.: see n. to 126. *corpore in ipso* = merely *intus in corpore*: see n. to IV 736 *aere in ipso.*

444—477: again things hard and dense, stones metals and the like, have hooked and branching particles; fluids have them smooth and round: things again which do not cohere, but yet are pungent, smoke mist flame, have sharp, but not tangled elements: sea-water has particles round and smooth mixed with others round but rough which give it its saltness; and these latter by filtering you may separate from the former. 445 foll. *hamatis* cet.: Cic. acad. pr. II 121 *ille qui asperis et levibus et hamatis uncinatisque corporibus concreta haec esse dicat*: the *uncinatis* = 427 *flexis mucronibus unca.* Newton optics p. 251 Horsl. 'the parts of all homogeneal hard bodies which fully touch one another, stick together very strongly. And for explaining how this may be some have invented hooked atoms, which is begging the question'. 447 *adamantina*: this I presume is a general epithet of great hardness. 448 *ictus contemnere sueta*: Virg. geor. II 360 *contemnere ventos Adsuescant.* 449 *silices*: see n. to I 571: these blocks paving their streets and roads would always be present to the eyes and minds of Romans. *robora*: see n. to I 882. 450 *Aera, claustris, restantia* are all vague words; so that their joint meaning must be somewhat doubtful: *Aera* I take to be the bronze bars or bolts of a gate; *claustra* the staples or metal boxes into which the bolts went to fasten the gate: apparently the strict meaning of the word: *restantia* then = resistentia, as I 110: *rest. cl.* meaning struggling with, refusing to part from; though *claustris* might be the modal abl.: most of the editors seem to take *aera* for the *cardo*; but as the ancient *cardo* had nothing in common with the modern hinge, *claustris* must then apparently mean the socket of the door-flap which moved about the *aera* or pivot of the *postis*: this it can scarcely do. 452 *flŭvido*: 464 *flŭvida*, 466 *flŭvidus.* *lĭquida*: so I 349, III 427; IV 1259 *lĭquidis et lĭquida crassis*; where see note: I 453 *lĭquor aquai*; the only case where the subst. is long, though that is the regular quantity of the verb. 454 *glomeramina*: this word, almost peculiar to Lucr., V 726 means the ball of the moon; II 686 atoms of different shapes meet *glomeramen in*

unum: from the context *glomeramina* would seem in our passage to mean *globosa primordia*, the round particles of any liquid; but if so, this sense is in strange contradiction to the meaning which Lucr. elsewhere gives to it: if it means the drops into which a liquid sometimes forms, that would only apply to a few cases in which a liquid so disperses itself: the words *retinentur inter se* are ambiguous, as they may refer either to a composite body keeping together, or to the separate atoms holding themselves in union. 455 *proclive*: see Cic. de fin. v 84 *proclivi currit oratio*, and Madvig there who shews that *proclivi* and *proclive* are the same in meaning and used adverbially: he compares *facile* and *sublime*, and refers to Gellius x 24 who says the ancients used *proclive* and *proclivi* indifferently: Cic. Tusc. disp. IV 42 *quia sunt in lubrico incitataque semel proclivi labuntur.* 460 *laxa*: fog and smoke for example could enter the mouth or nostrils or eyes or other open parts of the body: the action of flame is so different from these, it is not easy to bring it into comparison with them. *laxa* is a slight change and seems to suit the context. 463 *acutis*: so that they can *pungere*, but not *haerere*. 465 *Sudor maris* is simply the salt water of the sea, and has nothing in common with v 487, where *salsus sudor* is literally the sweat of the earth; or with what is there quoted from Empedocles. 467 *doloris* is the acc. plur.: it is certain that *doloris laboris maioris* and the like were often, if not generally written by Lucr. and Virgil: see 509 *melioris* and v 591, and Wagner orthogr. Verg. p. 404: *creant doloris* = 470 *laedere sensus*. 469 *Scilicet esse*: see n. to I 210 *Esse videlicet*. 472 *Neptuni*: he takes himself the licence here, which 652 (655) he somewhat contemptuously concedes to others. 475 *mansuescat* by losing the *aspera semina*. 476 *viri*: *virus* is used for the brine of the sea I 719, v 269, repeated VI 635, *Percolatur enim virus*; Manil. v 684 *ponti secernere virus*.

477—521: hence it appears that the number of different shapes in atoms is finite: some atoms must be infinitely large, if you have an infinite variety of shapes; for say certain atoms consist of three parts or four parts: their permutations will only give a certain number of shapes: go on increasing the number of parts, the shapes after every change of position will still be only finite in number: hence to get an infinite number of shapes, some atoms must be infinitely large; which is impossible: again were the shapes infinite, what is now best in colour smell flavour sound would be far surpassed; as well as what is worst: but as it is there is a limit to all this: there is a limit too to the heat and cold of the year.— This was another point in which Epicurus differed from Democritus and Leucippus who according to Arist. de gen. et corr. I 1 p. 314 22 taught that their atoms ἄπειρα καὶ τὸ πλῆθος εἶναι καὶ τὰς μορφάς: p. 315 b 9 foll. he gives their reasons for this. Philoponus in

his comment p. 3 b on the words of Aristotle just quoted records that according to Alexander of Aphrodisias the epicureans on this point *οὐκέτι συνεφώνησαν Δημοκρίτῳ*: this Epicurus himself in Diog. Laer. x 42 distinctly confirms, *καὶ καθ' ἑκάστην δὲ σχημάτισιν ἁπλῶς ἄπειροί εἰσιν ἄτομοι, ταῖς δὲ διαφοραῖς οὐχ ἁπλῶς ἄπειροι ἀλλὰ μόνον ἀπερίληπτοι*: the number of shapes is not infinite, only inconceivably great: this careful limitation is added no doubt with reference to Democritus. Lucr. simply states and argues that the number is finite, without deciding whether it is large or small. 479 *Ex hoc* cet.: it derives its proof from what has been said, because though there is so much difference in things in regard to hardness softness, smoothness roughness and the like, yet these differences are only finite: see 500 foll. 480 = 514 *finitis differre figuris.* 481 *rursum iam* refers to I 615: it will once more follow, though it was there proved to be impossible: see below 499 *supra quod iam* cet. 484, 487 and 490 *corporis* is of course the atom: see n. to I 600 *Corporis illius.* Lucr. seldom has to speak of a single atom: when he does mention one, he has hardly any word for it but *corpus*, as here. 485 *fac enim* cet.: he begins with *quoniam*; then with *fac enim* he commences a series of clauses, so that the clew of the construction is dropped; and 495 *Ergo* commences an apodosis to all that has preceded, referring not only to *quoniam* cet. but also to *fac enim* and all that follows: the anacoluthon is however very slight, if it exist at all: comp. III 425—439. *minimis e partibus*: this has been fully explained I 599 foll.: these *minimae partes*, which could not exist alone and had no distinctive qualities, Lucr. seems to have regarded as each perfectly identical; so that the atom took its shape and character solely from the mode of juxta-position in which these existed from everlasting in the atom; and three he seems to have thought the very smallest number that could compose one of his solid atoms. 490 *Formai speciem*: comp. IV 69 *formai figuram.* 491 *Quod superest*: see n. to I 50. 492 *Addendum partis*: see n. to I 111: the permutations will soon come to an end and to increase the shapes new parts must be added. 494 *etiam*, once again, still, which the comic poets shew to have been an idiomatical use: Cic. Verr. III 175 *dic, dic etiam clarius.* 496 *Subsequitur*, at once follows upon. 498 *maximitate*: see n. to I 653. 499 *supra* i. e. I 615 foll. With what precedes comp. Epicurus himself in Diog. Laert. x 56 *πᾶν δὲ μέγεθος ὑπάρχον οὔτε χρήσιμόν ἐστι πρὸς τὰς τῶν ποιοτήτων διαφοράς, ἀφῖχθαί τε μέλλει καὶ πρὸς ἡμᾶς ὁρατὴ ἄτομος...πρὸς δὲ τούτοις οὐ δεῖ νομίζειν ἐν τῷ ὡρισμένῳ σώματι ἀπείρους ὄγκους εἶναι οὐδ' ὁκηλικουσοῦν.*

500 *Meliboea*: Lucr. tells us that this was the Thessalian town: it lay on the shore, between Ossa and Pelion: Aen. v 251 *Purpura Maeandro duplici Meliboea cucurrit*; where Prof. Conington says '*Meliboeus* is formed from it as an adj. by poetical licence, as III 401 *ducis*

Meliboei'. 501 *Thessalico conc. col.*: see n. to I 474. *tacta*: Lucr. uses *contingo* and *contactus* in the same sense. Oudendorp to Lucan x 491 among several false instances quotes Lucan II 536 *tetigit sanguis pollutos Caesaris enses*. 502 *ridenti*: IV 1125 *pulchra in pedibus Sicyonia rident*. 504 *iacerent* of course is continued to this verse: Lucr. assumes according to wont that where the varieties are infinite there must be infinitely good and infinitely bad in what they produce. 505 Lamb. seems to be right in taking *Phoebea* to imply tunes played on the φόρμιγξ, the instrument of Phoebus. *daedala chordis* appears to be the same as 412 *per chordas organici quae...figurant*: both phrases seem to imply the giving expression on the strings to all the varied forms of the music: this v. even more than that consists of Greek words. 509 *in melioris* depends in grammar on *cedere retro*, in sense on *progredi* or the like. 513 and 518 *summam* i. e. the whole range within which they move. 516 *remensus* is more than once passive in Virgil. 517 *Extima* i. e. iacent. 520 *mucroni*: the metaphor must be from the *mucro* or point of the *stilus* setting a mark at each end of any length you wish to note: on the *i* of the abl. see n. to I 978.

521—568: the number of shapes being finite, the number of atoms of each shape is infinite, since it was proved in the first book that the sum of matter was infinite: if you say some animals are more scarce than would be the case, if the atoms of which they were made were infinite, I answer these animals may be very numerous in remote regions; but even if but one thing of its kind existed in the whole world, this would imply an infinite sum of atoms; else how could these have met and united in the boundless ocean of matter: the first-beginnings therefore of every shape and kind are infinite in number. 522 foll. see Epicurus cited to 478 foll. who precisely agrees with Lucr. 525 *etenim* cet. for no finite number multiplied by any finite number however large can produce an infinite sum. And as Epicurus and Lucr. conceived all infinites to be equal, the atoms of each shape must to them have been equal to the sum of all the atoms of all shapes; which seems absurd; but this opinion they shared with all the ancients, and moderns till comparatively recent times: Philoponus l. l. to the last section has a curious argument to shew that Democritus holding the atoms of each shape to be infinite must have held that there was τοῦ ἀπείρου ἀπειρότερόν τι, and that the epicureans teaching that the number in each shape was infinite must have believed the same: this to him seemed an absurdity; and it must have puzzled Epicurus and Lucr. as well. Newton cited to I 620 clears up the mystery. 525 *cluere*=esse. 528 *probavi* I 1008—1051: Lach. goes sadly astray, μέγας μεγαλωστί. 529 *Versibus* is thus nakedly put I 416 *Quam tibi de quavis una re versibus* cet. 530 *Ex infinito*, i. e. *tempore*, not *spatio*, apparently:

see n. to I 1001 (997): but here it is not quite certain. 531 *protelo*: IV 191 *Et quasi protelo stimulatur fulgere fulgur*: from the passages of Lucilius and others quoted by Forc. the word appears to denote a number of draught-oxen yoked one in front of the other and advancing by even successive pulls: hence it well expresses the effect produced by the continuous succession of blows of atoms.

532 *Nam quod* cet. an apparent objection to some shapes having an infinite number of atoms, but only apparent: the *quod vides* is like the familiar *quod scribis* in Cicero, to introduce his own answer or opinion: *quod* is the conjunction: see n. to IV 885. 535 *numerum*: so as to bring it up to an average. 537 *anguimanus* recurs V 1303 as the acc. plur. fem.: Lach. quotes Priscian to shew that *centimanus unimanus* and the like are declined like *manus* and observes that Lucr. is the only writer of authority who uses any of these words except in the nom. and acc. sing.: Cic. de nat. deor. II 122 *manus etiam data elephanto est.* 538 I know no other mention of this fable. 543 *orbi*: see n. to I 978. 546 *quod superest*: see n. to I 50. 547 *sumam hoc quoque uti*: not only grant that there could be a thing sole of its kind, but that the elements of such thing finite in number were scattered through the universe: euphony has determined the position of the words, as *Quippe etenim hoc quoque uti* would have had a very harsh sound: comp. too IV 752 *Nunc igitur docui quoniam.* 550 *turba aliena*, of atoms different in kind. 555 *fl. apl.*: Cic. Arat. frag. XXII *Navibus absumptis fluitantia quaerere aplustra. aplustre*, in plur. *aplustra* or *aplustria*, was a fan-like erection of planks rising above the poop: Lucan III 585 *dum pugnat ab alta Puppe Tagus Graiumque audax aplustre retentat.* 559 comp. V 1004 *Nec poterat quemquam placidi pellacia ponti Subdola pellicere in fraudem ridentibus undis*: Virgil has the adj. *pellax*: these two appear to be the only good writers who use the words. 561 *aevom*: so III 605 *omnem...per aevom*; Plautus has *vitalem aevum.* 567 *Esse igitur* cet.: he assumes now that he has proved the question stated 522 fol.: the whole paragraph therefore stands in closest connexion one part with the other. 568 *palam est* = apertum est, is found also in Cicero: comp. too III 355 *ipsa palam quod res dedit ac docuit nos*: so V 1157 *id fore clam. un. om. sup.* i. e. unde omnia primordia, quae suppeditantur, suppeditantar.

569—580: thus production and destruction alternately prevail, their elements ever waging equal war: no day passes without some dying, some being born. 569 *itaque*: for its place in the sentence see n. to I 419 on *igitur*. *itaque*: because the atoms of each shape being infinite, those which tend to preserve or destroy anything are alike infinite. 571 *rer. gen. auct. mot.* i. e. motus principiorum quae generant et augent res. *auctifici* is a ἅπαξ λεγόμ. 574 *contractum...bellum*:

IV 968 *contractum cum ventis degere bellum.* 575 *vitalia* [primordia] *rerum*: comp. VI 771 *Multa, cibo quae sunt, vitalia.* 576 *vagor*: Festus p. 375 quotes this passage and one of Ennius as authority for this form. 578 *Every minute dies a man, Every minute one is born.* Here too he has been content to sacrifice philosophical to poetical distinctness: what as an epicurean he means to say is that in the universe of things death and destruction are evenly balanced by life and production. Wishing to illustrate this doctrine, he has drawn his images from the apparent equality that there is in our world, so long as things continue as they are. But he elsewhere teaches, as his system required him to do, that our world came into being only yesterday, and sooner or later must be destroyed in an instant with all that is in it. What becomes then of this balance? he no doubt felt that its ruins would go to construct something else; but that he has not said: see 75 foll. and notes there. This balance in the whole universe, says the epicurean in Cic. de nat. deor. I 50 *ἰσονομίαν appellat Epicurus, id est aequabilem tributionem...et, si quae interemant innumerabilia sint, etiam ea quae conservent infinita esse debere.*

581—599: this you must carefully bear in mind: the more powers and properties anything possesses, the greater variety of elements it contains: thus the earth has elements out of which seas and fountains and fires, out of which crops and trees, rivers and pastures are supplied; it is therefore called mother of gods men and beasts alike. 581 *obsignatum*: the force of the metaphor is obvious: the signing and sealing a document is a proof of its importance. *quoque* would certainly seem to belong rather to *Illud* than to *obsignatum*; as 216 *Illud in his quoque te* cet. where there is no doubt: see n. to V 192: it might here be explained *sealed*, as well as written and deposited. 582 *mandatum* i. e. menti, follows on the *obsig.* 586 *vis multas*: III 265 *multas vis*: Sallust and Messalla also use this form: see Forc. 590 *volventes frigora*: a bold and beautiful image. 593 *imp. Aet.*: VI 281 *gravis ignis Impetus.* 595 *habet* [corpora prima] *unde.* 598 *Quare* cet.: having more variety of first bodies in her, she has greater powers of production; and therefore is preeminently styled the mother of all living things, as from her alone comes the food which sustains all.

600—660: her the old Greeks have personified as the great mother: she rides in a chariot drawn by lions; wears a mural crown, has Phrygian attendants, is accompanied with noisy music, receives on all hands alms; her followers represent the Curetes who saved the young Jupiter from his father: all which things are an allegory with some moral significance; but beautiful as they are, they are mere fancies; the blessed and immortal gods trouble themselves not about men: as you call the

sea Neptune and the like, call the earth mother of the gods, if you please; but remember at the same time that it is senseless matter, only containing the elements of many things. 601 Aen. x 252 *Alma parens Idaea deum cui Dindyma cordi Turrigeraeque urbes biiugique ad frena leones*; and Soph. Phil. 399 Ἰὼ μάκαιρα ταυροκτόνων Λεόντων ἔφεδρε. 602 foll.: Varro quoted by St Austin de civit. dei VII 24 *quod turres in capite* [habeat significari esse] *oppida; quod sedes fingantur circa eam, cum omnia moveantur, ipsam non moveri....leonem adiungunt solutum ac mansuetum, ut ostendant nullum genus esse terrae tam remotum ac vehementer ferum quod non subigi colique conveniat.* 603 comp. I 1057. 604 605 comp. Ovid fasti IV 215 *coepi 'cur huic genus acre leonum Praebeat insolitas ad iuga curva iubas'. Desieram. coepit 'feritas mollita per illam Creditur: id curru testificata suost'*: all this part of Ovid much resembles Lucr. 606 *Murali corona*: Aen. VI 784 *Berecyntia mater Invehitur curru Phrygias turrita per urbes*; Ov. l. l. 219 *At cur turrifera caput est onerata corona? An primis turres urbibus illa dedit?* and Spenser f. qu. IV 11 28 *Old Cybele arayd with pompous pride, Wearing a diadem embattild wide With hundred turrets like a turribant*: the mural crown given to the soldier who first mounted the walls was of course imitated from the walled crown of Cybele. 611 *Idaeam voc. mat.*: her legal name: Cic. de leg. II 22 *Praeter Idaeae matris famulos...ne quis stipem cogito. Phrygias*: Lucr., as Virg. Aen. IX 80 *Phrygia...in Ida*, points to the Trojan or Phrygian Ida: the whole worship was purely Phrygian: Eurip. Bacch. 58 τἀπιχώρι' ἐν πόλει Φρυγῶν Τύμπανα, Ῥέας τε μητρὸς ἐμά θ' εὑρήματα: though, as we can see in this very passage, the Phrygian and Cretan legends got mixed together. 614 *numen...Matris* i.e. Cybeles, though Creech sneers at poor Fayus of the Delphin for so taking it. 615 *et cet.* explains *numen qui vi. ma.* they outrage her divinity by ingratitude to parents; as she is great mother of men as well as gods: see 599. 618 *palmis*: it appears from old paintings that the *tympanum* was struck with the open hand: Catul. LXIV 261 *Plangebant alii proceris tympana palmis*; LXIII 21 *Ubi cymbalum sonat vox, ubi tympana reboant*. *cym. cir.*: Virg. geor. IV 64 *matris quate cymbala circum*; Ovid fasti IV 213 *Cymbala pro galeis, pro scutis tympana pulsant, Tibia dat Phrygios, ut dedit ante, modos.* 619 *raucisono* cet.: V 1084 *Raucisonos cantus*; Catul. LXIV 263 *raucisonos efflabant cornua bombos*: an imitation of Lucr.: see context. 624 imitated by Virgil l. l. to 606. 625 *Munificat* and 627 *largifica* appear to be ἅπαξ λεγόμενα. 626 *iter viarum*: V 1124 *iter infestum fecere viai*; 714 *cursusque viam sub sole tenere*. 627 *ningunt*, a fine image to express the thick falling of the flowers: Lucr. seems alone to use the word in this way and with this sense. 629 *Curetas.. Phrygios*, called after 633 the *Dictaeos*

Curetas: most Greek authorities confine the *Curetes* to Crete, and call the Phrygian attendants *Corybantes*: Ovid l. l. 210 unites the two, *Hoc Curetes habent, hoc Corybantes opus*; and later Latin poets confound the *Curetes* and *galli*. 630 *forte*, 'quo poeta' says Lach. 'significat eos non semper armis ludere, sed interdum, si quando libuerit'. *quod* refers of course to 633 *referunt*. 631 *Ludunt in num. ex.* and 636 *in numerum pulsarent* cet.: Virg. ecl. VI 27 *in numerum Faunosque ferasque videres Ludere*: IV 769 *Bracchiaque in numerum iactare et cetera membra*; 788 *in numerum procedere*: V 1401 *extra numerum procedere* is the opposite: so Cic. parad. III 26. 632 *numine* implies the swaying of the head to this side or that: comp. IV 179 *In quem quaeque locum diverso numine tendunt*. Wagner philologus suppl. I p. 400 well defends *numine*, and asks why the mss. which in 4 or 5 places rightly keep *momen*, should just err in these two places, where *numine*, supposing it can have the sense of *nutus*, seems more appropriate: Conington to Aen. II 123 compares Catul. LXIV 204 *Adnuit invicto caelestum numine rector, Quo* cet. where both meanings seem to unite. 633 foll.: Ov. l. l. 207 *Ardua iandudum resonat tinnitibus Ide, Tutus ut infanti vagiat ore puer. Pars clipeos sudibus, galeas pars tundit inanes.* 635 *pueri* with reference to the name Κουρῆτες: *pueri, puerum* followed by *aeribus aera* another of his many assonances: Lucr. may have been thinking here of Callimachus hymn. in Iov. 52 Οὖλα δὲ Κούρητές σε πέρι πρύλιν ὠρχήσαντο Τεύχεα πεπλήγοντες ἵνα Κρόνος οὔασιν ἠχήν Ἀσπίδος εἰσαΐοι καὶ μή σεο κουρίζοντος:. Aen. I 684 *pueri puer indue vultus*; V 569 *pueroque puer dilectus Iulo*. 636 comp. Ovid cited just above and to 618: the Cretan Curetes clashed with real arms; the cymbals and tambourines of the Phrygian Curetes recall the memory of that old story. 637 *malis mandaret*: Cic. de orat. III 217 and again Tusc. disp. IV 77 quotes from Attius *hortatur me frater ut meos malis miser Mandarem natos*, as the latest editors of Cicero read after all the best mss. of the Tusc. disp.; but the best mss. of the de orat. and Ribbeck trag. rel. have *manderem*; which certainly is the more natural expression: so Virg. geor. III 268 *malis membra absumpsere*; Aen. III 257 *malis absumere mensas*: yet Lucr. seems to have read or thought he had read in Attius *mandarem*. 639: Aen. I 36 *aeternum servans sub pectore vulnus*: Lucr. himself I 34 *aeterno devictus vulnere amoris*.

646—651: of many passages which might be quoted the most in point is the first κυρία δόξα of Epic. himself in Diog. Laer. X 139 τὸ μακάριον καὶ ἄφθαρτον οὔτ' αὐτὸ πράγματ' ἔχει οὔτ' ἄλλῳ παρέχει, ὥστ' οὔτ' ὀργαῖς οὔτε χάρισι συνέχεται· ἐν ἀσθενεῖ γὰρ πᾶν τὸ τοιοῦτον, translated by Cic. de nat. deor. I 45 *quod beatum aeternumque sit, id nec habere ipsum negotii quicquam nec exhibere alteri, itaque neque ira neque gratia teneri, quod quae talia essent inbecilla essent omnia*: at

v 146 foll. and 1161 foll. more will be said on this question: that Epicurus and Lucr. firmly believed in the existence of these gods is certain: how this immortality and supreme felicity can be reconciled with the rest of their philosophy, it were vain to ask; for no answer could be given. Did the gods exist from all eternity? or had they a beginning? The words of Ennius trag. 353 are well known, *Ego deum genus esse semper dixi et dicam caelitum, Sed eos non curare opinor quid agat humanum genus.* 646 with *Omnis divom natura* comp. 757 *si nulla coloris principiis est Reddita natura*; I 710 *in rerum naturas vertier omnis*: he usually gives the epithet to *natura*, not to the substantive depending on it: see n. to I 281 *mollis aquae natura*; and comp. also I 962 *haec sensus natura. divom natura* seems to be a mere periphrasis for *divi*; as I 194 *natura animantum* for *animantes.* 649 *privata* = expers, is very common in Lucr. as III 905 *cunctis privatu' doloribus aegris.* 652 (655) *Neptunum*, as he himself does 472 *Neptuni corpus*, 653 (656) *Bacchi nom.* as he does himself III 221 *Bacchi cum flos evanuit*: but in these verses he doubtless points at the stoics who carried allegory of this kind to an absurd length: see what the stoic Balbus says in Cic. de nat deor. II 50 foll. Every part of heaven and earth was thus parcelled out among the gods and demigods, and fatuous derivations assigned to their names by Zeno Cleanthes Chrysippus and other leaders. 658—660 (652—654) see notes 1; and for an explanation of this transposition see above p. 22. 659 *potitur primordia*: the same constr. is found III 1038 *Sceptra potitus*, and IV 760 *quem...potitast*: the latest editors appear to banish it wholly from Cicero; but the best mss. of the auctor ad Herenn. IV 57 have *potitus est gloriam*: this constr. is very common in the fragments of the old tragic writers.

661—699: in this way sheep horses cattle eating the same grass and drinking from the same river all keep their distinctive differences: thus grass and each river must contain most different elements: nay the parts of the same animal are quite different; and are formed therefore of different elements: then too fuel must contain elements of fire and flame and ash: then many things have divers properties, colour flavour smell; and these have all different elements as they enter things in different ways: things therefore must be of mixed seed: again as the same letters are common to different words, so the same elements may be common to most different things, to men corn trees. 661 *itaque* manifestly refers to *Multa modis multis effert*: with these words in their old place it has no meaning: the thread of the argument dropped at 599 is again resumed, i. e. the great variety of elements the earth contains. 662 *duellica*: so *duellum duellatores, perduellis* which always remained in use, *Duelonai* in an old inscription, *duonoro* (bonorum) on the tomb of the Scipios: Lach. quotes from Plautus capt. prol. *bellique duellatores*

optumi, the *u* of such words in Plautus being generally, as here in Lucr., a consonant; so Ennius *perdvellibus*. 663 *Buceriae*: Nonius Charisius Servius all attest the feminine: Lucr. in the neut. uses the form *bucera* more than once. *sub teg. caeli*: see I 992 (988). 667 *Tanta* cet. shewing therefore the manifold elements in the earth. 669 *Hinc porro*, 671 *porro*, 673 *Tum porro*, as if the use of the word suggested unconsciously its repetition. 678 and 682 *igitur*: see n. to I 419: *igitur* in 678 has the force which it not unfrequently has in the old writers, as Plaut. miles 772 *Quando habebo, igitur rationem mearum fabricarum dabo*, the participial clause being equivalent to a protasis: see Hand Turs. III p. 185. 679 *figuras*, 682 and 685 *figuris*: see n. to 385: in these three places the word clearly refers to atoms, but may include also shapes of atoms; as it must so far have been ambiguous to Lucr. 681 *cum odore*: see n. to 404. *privis* = singulis, is often used by him. 683 and 684 *fucus* = color: so 744 *nullo circumlita fuco*, and IV 84 *fucum Mittunt*. 688—690 = I 823—825. 691 *multa parum*: see n. to 336. 694 = 337 = 724. 698 *merito ex aliis* cet. though they have very many elements in common.

700—729: but all elements cannot unite in all ways; else monsters of all kinds would arise: every creature has its fixed seeds, fixed mother; and thus is kept within its limits; and of the elements it takes as food some only remain, others are rejected as unsuitable: and so it is with inanimate as well as animate things: they have each elements different or differently combined; and the modes of action of these elements differ, so that not only living bodies, but all nature, earth sea and heaven, are kept distinct. 700 foll. this question is more fully discussed V 837—924. 702 *Semiferas* the centaurs: comp. V 878 foll. 703 *egigni* seems a ἅπαξ λεγόμ.: with *eg. corp.* comp. VI 761 *Et quibus effiant causis*, and n. to V 703: Lamb. compares Hor. sat. II 2 105 *tanto emetiris acervo*; but such constructions are common enough. 704 he speaks of Scylla: comp. V 893. 706 *omniparens terra* is found also V 259 and in Virgil. 710 and 725 *necessust*: see n. to 289, and Lach. VI 815; who shews that Terence has *necessus fuit, sit necessus*; Plautus *necessumst, necessust, necesse est*, all three forms found in Lucr. but *necessust* in Plautus must surely be *necessus est*, and this contraction Lucr. would not use: are we to read *necessumst* here, or is there a nom. *necessu*? 711 *intus* i. e. when they are inside the body. 714 *reicere* i. e. the different excrements. *multa caec. cor... e cor.*: see n. to I 875, and II 843 846 *Corpora prima.. Nec iaciunt.. de corpore*: here in fact *multa* would naturally agree with *corpora*; so that we should then have *multa corpora Corp. cae. fug. e corpore*. 717 *consentire* = una sentire. 719 *disterminat* is used by Cicero Arat. 94: keeps the *termini* of things apart. 725—729 as the atoms differ in

[redacted]

shape, then the void spaces between them, when they are in union, must differ; and therefore the passages, the manner in which they are linked together, the weights collisions and the like must all differ: thus not only does each living thing preserve its individuality, but inanimate things as well; and indeed the great divisions of the whole world, earth sea and heaven are kept from intermingling: heaven earth sea have all many common elements, but as a rule the heavier and those which unite more closely will seek the heavier earth, the lighter the lighter ether air and the like. 729 *retentant* seems synon. with *retinent*.

730—756: atoms have no colour whatever: the mind has to conceive them as without colour; for any colour may change into any other; but the first bodies are unchangeable, or things would pass into nothing.— He proceeds to shew that atoms have none of what are called secondary qualities, colour and the like: the import of this section is briefly given by Epicurus in Diog. Laer. x 54 *τὰς ἀτόμους νομιστέον μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματι συμφυῆ ἐστί. ποιότης γὰρ πᾶσα μεταβάλλει, αἱ δ' ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδήπερ δεῖ τι ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὂν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος*: and Diog. 44 referring forwards to this passage adds *τὸ δὲ χρῶμα παρὰ τὴν θέσιν τῶν ἀτόμων ἀλλάττεσθαι ἐν ταῖς δώδεκα στοιχειώσεσί φησι* [Ἐπίκ.]. Democritus, as appears from Diogenes Sextus Stobaeus and others, held quite the same views. 730 *Nunc age* calls for attention as he is passing to a new and important argument. 731 *albis ex*: see n. to I 841. 733 *nigrant*, a very rare word except in the pres. partic. 734 *Nive*: III 286 *Ni*; and Catul. LXI 153, and? Aen. III 686: Orell. inscr. Lat. 4783 *rogo per deos superos inferosque ni velitis ossa mea violare*: the new corp. inscr. Lat. has many instances of *ni* and *nive* and more than 100 of *nei* and *neive* which connect the *ni* with the common form *ne*: see also Donatus quoted to I 277 *nimirum*. 740 *animi iniectus*: 1047 *animi iactus liber quo pervolet ipse*: comp. too Cic. de nat. deor. I 54 there quoted, who uses *in quam se iniciens animus* in the same way: Gronovius obs. I 4 p. 65 shews that both Cicero and Lucr. are translating Epicurus' technical word *ἐπιβολή* or *ἡ φανταστικὴ ἐπιβολή*: comp. Epicurus in Diog. Laert. x 62, where *τὸ κατ' ἐπιβολὴν λαμβανόμενον τῇ διανοίᾳ* is opposed to what is perceived by sense; they are the two great ways by which truth can be arrived at. 741 *caecigeni* seems peculiar to Lucr. 748 (743) *Ex ineunte aevo* recurs in Lucr. five times and always denotes the beginning of the life or existence of some living or inanimate things; here however they must mean during the infinite time past that atoms have existed: this to my mind throws some doubt on the transposition: if they are left in their original place,

they have their usual sense; and in that case a verse must be lost here, such as *Corpora quae constant nullo coniuncta colore.* 749 *Omnis, omnino, in omnis.* 751—754 = I 790—793. 755 *contingas*: see n. to I 934.

757—787: again if atoms have no colour, but beget any colour by their different shapes positions motions and the like, you can explain change of colour: thus the green sea becomes white: why? by its elements changing their order, and by some going, others coming: but green elements could not become white. But if you say they have different colours, then you should see in the one colour of the sea others quite different mixed up, as in a square composed of various shapes you see these shapes: again these shapes do not prevent the whole exterior being square; but different colours would prevent a thing being of one colour. 757 foll.: with this and with what precedes and follows comp. what Plut. adv. Colot. 7 cites from the 2nd book of Epicurus against Theophrastus: colours are not *συμφυῆ τοῖς σώμασιν, ἀλλὰ γεννᾶσθαι κατὰ ποιάς τινας τάξεις καὶ θέσεις πρὸς τὴν ὄψιν κ.τ.λ.* 760—762 nearly = I 817—819, 908—910, II 1007—1009. 767 *candenti marmore* is abl. of quality: with *canos candenti* comp. 771 *candens et album*, both mere pleonasms. 777 *nitorem* = *colorem*, as 782 787 and 819. 780 *Conveniebat*, after 776 *Sin sunt*: the tense always used by Lucr. in this sense: another proof, if that were needed, that III 685 *Convenit* cet. is spurious, the right form *Conveniebat* having preceded in 682. 785 *extra*, on the outside, opposed to what is *intus*, seems quite to suit the meaning: comp. Varro de re rust. III 16 16 *vitiles fimo bubulo oblinunt intus et extra*; comp. too Lucr. IV 646 *Ut sunt dissimiles extrinsecus.*

788—794: we are tempted to give to atoms colour, not knowing how colour otherwise can come: but we have seen that white can come from what is not white; and surely white can arise more easily from no colour, than for instance from black: this reason then falls to the ground. 790 *quoniam*, as seen in the last paragraph. 791 *cluent* = sunt. *variis ex*: see n. to I 841.

795—816: again colours cannot exist without light, atoms never come into the light, therefore atoms have no colour: what colour can there be in darkness, when we see that the same thing continually changes its colour in different lights? as therefore it is such and such stroke of light which produces such and such colour, without that stroke they cannot exist: as too one stroke produces white, another black, and as a stroke is a touch, and as it is shape, not colour which affects touch, atoms need not colour, but different shapes to give different touches. 795 foll. Lucretius' syllogism is quite correct; it is Lambinus' which is in fault, who quite misstates the poet's minor premiss. 797 *velata*: a picturesque metaphor. 799 *quin ipso* = quientiam;

therefore it governs the indic.: see n. to I 588. 802 *cervices collumque*, one of his many pleonasms; as *cervices* means the back, *collum* the whole circle of the neck: Cic. pro Sestio 90 joins *et cervices et iugulum*. 803 *pyropo* was some mixture of gold and bronze which had its name from its colour: Ovid met. II 2 *flammasque imitante pyropo*. 804 *sensu* refers to the beholder's perception or mode of viewing it: IV 448 *quodam sensu fit uti videantur Omnia*. 805 Wak. well compares Seren. Samon. 952 *Curalium vero si collo nectere males, Ne dubites illo virides miscere smaragdos*: he plainly imitates Lucr. 807 *obversa* appears to be *obversa soli*, and to=801 *in sole*. 809 *Scire licet*: see n. to I 210. 815 *opus esse colores*: see n. to I 1051.

817—825: again if atoms have colour, it will not be said that this or that colour belongs only to this or that shape of atom: why then should not things formed out of coloured atoms vary their colours also? why should not crows be sometimes white, swans black or green? 819 *Formamenta*, another of the many words which seem peculiar to Lucr. and his imitator Arnobius. 821 *perf. col.*: Aen. V 111 *ostro Perfusae vestes*. 825 briefly put for *Aut cycnos fieri alio quovis colore, vel uno vel vario, de semine eius coloris*. *uno varioque*: comp. 830 *Purpura poeniceusque color* i. e. color sive purpureus sive poeniceus; V 985 *Spumigeri suis adventu validique*, where Lach., as I now see, wrongly reads *ve* for *que*; 1237 *dubiaeque minantur*, where Bentl. reads *dubiaeve*. Wagner quaest. Virg. XXXIV 1 gives many similar instances from Virgil of *que* with the force of *vel, vel* or *sive, sive*: comp. too n. to III 551 *manus atque oculus naresve*.

826—833: again the smaller the shreds into which a thing is divided, the more its colour vanishes: be sure then all colour is gone before a thing comes to its first elements. 829 with *austrum* and *ostrum* comp. *Claudius* and *Clodius*, *Paulus* and *Pola*, *ausculum auscalari* and *osc.*, *aula*, *aulularia* a play of Plautus, and *olla*, *plaustrum* and *plostrum*, and the like. *austrum* is the general term for the purple cloth of whatever hue: comp. Aen. I 700 *stratoque super discumbitur ostro*; Stat. Achill. II 82 *picto discumbitur ostro*: whether this cloth be the *purpura* or darker hue, or the *poeniceus* or bright scarlet. Prop. V (IV) 3 51 *Poenis tibi purpura fulgeat ostris*; Claudian Prob. et Olyb. consul. 90 *Album puniceo pectus discriminat ostro*. Lach. shews that *poeniceus puniceus poenicius punicus* have all the same meaning, belonging to the *Poeni*: thus the lex Thoria has *bello Poenicio*, Ovid *A duce Puniceo*, while Horace applies *Punico* to the colour. 832 *effl. col.*: V 652 *suos efflavit languidus ignis*.

834—841: you do not assign sound or smell to things which give forth no sound nor smell: why then attribute colour to all things? the mind can perceive things without colour as well as things without smell.

842—864: but atoms are likewise without heat or cold, without

sound flavour or smell. As in preparing a perfume you seek out a quite scentless oil, that it may not infect the perfume with its own scent; thus first-beginnings must possess neither heat nor cold, smell sound nor flavour: these qualities are all frail and mortal, and must therefore be wanting to immortal elements unless things are to pass away to nothing. 842 *colore*: the frequency with which this word has been repeated in the last 100 lines is very striking. 842 foll. notice the variety of expression to denote privation: *spoliata secreta sterila ieiuna seiuncta*, and above *privata, sine odore, sonitu remota, orba colore, efflare stingui evanescere colorem*; all in the compass of a few lines. Democritus before him in Sextus adv. math. VII 135 said νόμῳ γλυκὺ καὶ νόμῳ πικρόν, νόμῳ θερμόν, νόμῳ ψυχρόν, νόμῳ χροιή· ἐτεῇ δὲ ἄτομα καὶ κενόν. 843 *manere*=esse, 845 *feruntur*=sunt, as *cluent* so often does in Lucr.: it is curious that two such opposite words should come to have the same force: *feruntur* is elsewhere applied by him to his atoms in motion; but that can hardly be its sense here: with *manere* comp. the use of *stare* in n. to 181. *secreta teporis*: I 194 *secreta cibo*, with abl. 844 *calidi vaporis*: *calidus* in Lucr. is a perpetual epith. ornans of *vapor ignis fervor* etc.: comp. *gelidae pruinae, gelidus rigor, candens lacteus umor, aeriae aurae, sonitu sonanti* and the like: 858 *calidum tepidumque vaporem*, the epithets are distinctive. 845 *sonitu sterila*: the gen. is more common: the form *sterilus* is mentioned by Festus: comp. in Lucr. *hilaro* and *sublima*. *suco ieiuna*: Cic. orator 106 has the gen. *ieiunas igitur huius..orationis aures civitatis accepimus*. 846 *ullum proprium odorem*: 855 *adhibere suum gignundis rebus odorem*. 847 *amaracini*: this perfume is mentioned IV 1179 and VI 973. Daubeny Rom. husbandry p. 272 'Dioscorides and Pliny both tell us that *amaracus* was the same plant as *lampsana*, and the latter is considered by Sibthorp to be our marjoram, *origanum maiorana*, a native of Egypt and Crete.' *stactae*, named from the dropping of the myrrh juice: Pliny XIII 17 says *murra et per se unguentum facit sine oleo, stacte dumtaxat*; and Dioscor. I 73 says the same, στακτὴ...καθ' ἑαυτὴν μύρον καλούμενον, δόκιμος δέ ἐστιν ἡ ἀμιγὴς ἐλαίῳ: but the point of Lucretius' argument is the mixture with oil. 849 *nardi florem*, unless Lucr. is speaking vaguely, must be used, as *Bacchi flos* and the like, for the aroma or bouquet; as it appears from Pliny and Dioscorides that it was the ear and leaf of the eastern *nardus* that was used in perfumes; the stalk and root of the northern. 849 *Cum..instituas*: see n. to 41. 850 *possis* is potential: comp. 248 *quod cernere possis*, 922 *nequeant*; and see n. to I 327: if he can there use *potest* and *possis* in the same passage, he may surely here join *licet* and *possis*. *inolentis* another ἅπαξ λεγόμ. 851 *auram*: Forc. quotes Martial III 65 2 *de Corycio quae venit aura croco*; and Virg. geor. IV 417 *spiravit crinibus aura*. 853 *viro*, in

this case is almost unexampled: VI 805 *odor viri* is used for the pungent fumes of charcoal. 859 *Cetera* without *et*: so 1085; and thus I read in IV 419: it is found in Cicero, as topica 27. *tamen*, as so often, implies something understood: all these, whatever they are, however much they differ, are yet of such sort as to be liable to death, whether they are *Molli lenta* or etc.: the *molli lenta* seems to refer to fire and heat, *fragosa putri* to ice and cold, *cava corp. raro* to flavour sound smell; as they are all material and would seem, where he describes them, to be of bodies severally like these. 860 *fragosa*=fragilia: a sense which the word seems nowhere else to bear. 862 *subiungere* appears to be the opposite of *seiuncta* in the preceding verse: such things must be detached, imperishable foundations attached to things.

865—885: all things which have sense come from insensible elements: a visible proof of this you may see in living worms rising from the putrid earth: again grass and water change into cattle, the flesh of cattle into men, men often go to feed beasts and birds: nature turns food into what has life and sense, much as dry wood passes into flame; so much is effected by transposition and mixture and motions of elements.—That the soul, the vital principle and sense were born and died with the body in all creatures, was of course a necessary doctrine of the epicureans and is passionately asserted by Lucr. throughout the third book. 866, 870 and 888 *insensilibus*: this word as well as *sensilis* seems peculiar to Lucr. among writers of authority: Arnobius his constant imitator has *insensilia*. 869 *ipsa manu ducunt*: Aen. III 372 *Ipse manu multo suspensum numine ducit*, literally: the metaphor is obvious; χειραγωγεῖν is common in the later Greek writers. 871 foll. this illustration, important from his point of view, he often repeats; see 898, 928, III 719, V 797: Aristotle and the old physiologists seem to accept it as an undoubted fact. 872 *putorem*: 929 *putor*, VI 1101 *putorem*: all of the rottenness of the earth after rain; though *putor* in Varro de ling. Lat. V 25 and elsewhere is said of a *putidus odor*: Lamb. and others would read in all these cases *putror*. 874 *itidem* i. e. inanimate things into living and sensible. 878 *pennipotentum*: this expressive word recurs V 789. 881, flame seeming to be no more like wood than a sensible to an insensible thing. *adque* B some six times, A never: I doubt whether in such cases I have done right in retaining it after Lach.: it seems rather to have become common in the first century and later from a false affectation of analogy: see n. to VI 92 *praescribta*, and to II 141 *Apparet*, and introduction p. 26. Wagner forces *adque* on Virgil in all cases, against the overwhelming testimony of mss. 883—885 repeated in substance 1007—1009.

886—930: the mind tries hard not to believe that sense can come from what has not sense; for stones woods clods can by no mixture pro-

duce it: but, mind, it is not every element that can beget sense; only certain atoms with certain shapes and arrangements: but even these woods and clods may, as we have seen, give birth sometimes to living things. But they who say that sense can only come from what has sense, suppose elements to be soft, as we never see sense united but with what is soft: yet suppose such elements eternal; they must have the sense of some part or of the whole living thing: but no part can feel away from the whole thing: well then these elements must be like the whole living thing: if they are living then, they are thereby liable to death; but even if they are not, they would make but a medley of living things, like the impossible unions of men and brutes: but if they lose their own sense, why then give it only to take it away? nay we have just seen that sense *can* come from what has no sense. 886 *animum percutit* seems almost proverbial: Ter. Andr. 125 *Percussit ilico animum*; Cic. ad Att. IV 8 b 3 *audivi.. Romae esse hominem.. percussit animum.* 887 *varios sensus* i.e. varias sententias: it is very probable that his frequent use of *sensus* with its primary meaning in this part of his poem has prompted him to use it here, rather than avoid it, in a different signification: see n. to I 875. 894 *quantula*, because the atoms which go to produce sense and life are of the smallest and finest kind. 896 *quae sint* i.e. qualia sint. 901 *Conc. ita ut debent* i.e. Conc. tali concilio quali debent. 903 *sentire sueta Mollia iam faciunt*: by the very fact that they give them sense they thereby make them soft. 907 *esto iam*: see n. to I 968. 909 *Aut* [sensu] *simili esse putari*: comp. III 620, VI 268. 910 *alio.. respicit* i.e. respicit ad animam: but the true reading is not certain. 922 (921) *nequeant* is potential: see 850 and comp. n. to I 327. 925 *quid opus*: for surely if an element first lose sense, it is the same as if it had never had it. 926 foll. *tum praeterea*: a concluding argument drawn from what we actually see going on in the world: see I 984 (998) foll. and other examples in I II III V there cited. 926 *quo fugimus* i.e. quo confugimus: Forc. cites Petron. sat. 132 *Ad verba, magis quae poterant nocere, fugi.* *ante* i.e. 871 foll. 927 *Quatenus*=quandoquidem: III 218 *Quatenus...Extima membrorum circumcaesura tamen se Incolumem praestat*; 424 *Quatenus est unum inter se*: see also Horace and others in Forc. for this use. 928 *vermisque effervere*: Virg. geor. IV 556 *apes.. ruptis effervere costis.* 930 *ex non sensibus*, 932 *a non sensu*: comp. I 1075 *per non medium.*

931—943: 'if it be said sense comes from what has not sense by a process of change or a sort of birth, I answer, birth and change both imply a previous union: before the creature is begotten, its body cannot have sense, as its matter is dispersed abroad and has not come together in a way to awake any of the senses'.—This passage is obscure: he must apparently be alluding to the stoics. Plut. de stoic. repugn. 41 of Chry-

sippus τὸ βρέφος ἐν τῇ γαστρὶ φύσει τρέφεσθαι, νομίζει, καθάπερ φυτόν· ὅταν δὲ τεχθῇ ψυχούμενον ὑπὸ τοῦ ἀέρος καὶ στομούμενον τὸ πνεῦμα μεταβάλλειν καὶ γίνεσθαι ζῷον κ.τ.λ.: now this certainly might be termed a process of change or the effect of a sort of birth; life being the immediate consequence of the birth; but Lucr. is brief and obscure as he is doubtless alluding to writings not extant. 931 *dumtaxat*: see n. to 123. *mutabilitate*, in the unusual sense of actual change: the primary meaning is that in which Cicero uses it, tendency to change. *oriri Posse a non sensu*: IV 484 *quae tota ab sensibus orta est*; 521 *falsis quaecumque ab sensibus ortast*, will support Wakefield's *a* against *ex*. 933 *proditus*; used literally also III 603 *extra prodita corpus*. 934 *Huic* cet. he may be told that he really concedes the point that sense *can* come from what has not sense. 935 *Non fieri partum*: IV 1229 *Semper enim partus duplici de semine constat*. 935 936 so that in both cases there is a union of senseless elements previous to the reception of sense. 937 *Principio* 'hic est *praecipue* (hoc autem vocabulo Lucretius non utitur) vel *in primis, ante omnia*, ἀρχήν. sic in V 92, III 119' Lach. 942 *omnituentes* formed like *omniparens* and the like. 943 *Accensi sensus*: 959 *paene amissos accendere sensus*; III 336 *accensus nobis per viscera sensus*.

944—962; a living creature receives a blow which its nature cannot endure: the senses of body and soul are stunned: the connexion of the two is broken, and the soul escapes through the apertures of the body: a blow can do no more than break up and scatter the several elements. Again the remaining vital motions can often get the better of a less severe blow, bring each thing back to its proper channel, and rekindle the senses: in this way only is the thing recalled to life. 950 *nodos*: VI 356 *Dissoluont nodos omnis et vincla relaxant*. 951 *caulas* Lucr. uses eight times in this sense, a sense quite peculiar to him: see Festus and Varro in Forc.: the word must evidently be *cavula*. *eiecit*: see n. to I 34 *Reicit*: Lucr. and his contemporaries only knew the forms *eiĕcit* or *eicit*, not *eiicit*: III 513 *traiecere* mss.: Ribbeck has often restored the *e* to Virgil; and it appears not to have been unknown to Livy: see Madvig emend. Liv. p. 190; and indeed the better mss. of almost any classical author offer examples: Cic. Marius in de div. I 106 *Abiĕcit ecflantem*. III 639 *dissicietur* mss.: this form too Ribbeck's mss. sometimes restore to Virgil; see also Kempf Valer. Max. p. 282 6. 952 foll. the blow can only dissolve the union of the elements, not deprive them of sense, if they had it of themselves. 955 *Reliqui* those which the blow has not stopped. *vincere... Vincere*: III 12 *aurea dicta, Aurea*; IV 789 *mollia membra movere, Mollia*; V 298 *tremere ignibus instant, Instant*: 950 *lavere umida saxa, Umida saxa*; VI 528 *omnia, prorsum Omnia*: the practice is as old as Homer. 957 *quic-*

quid = *quicque*: for spelling with *c*, when it is not the relative, see n. to I 23 *quicquam*: *quicquid* in this sense is an archaism, but Lucr. employs it some six times; it is found in Plautus, and is not unknown to Cicero: see Madvig de fin. p. 655. The *suos meatus* are opposed to the *leti motum* of next v. 960 *qua re* seems to be emphatic here and to mean in what way, if not in this; I have therefore printed it in two words: comp. Ter. eun. 369 *Quid si nunc tute fortunatus fias? qua re, Parmeno?...capias tu illius vestem*: Lucr. means then it is the remaining vital motions which give back sense and life to the elements which of themselves have no sense. *leti limine*: a metaphor which he repeats VI 1157 and 1208: comp. too III 681 *vitae cum limen inimus*: *culex* 221 *cum te Restitui superis leti iam limine ab ipso*. 961 *possit* i.e. the *animans* of 944. *conlecta mente*: Lamb. compares Cic. Tusc. disp. IV 78 *quid est autem se ipsum colligere nisi dissupatas animi partis rursum in suum locum cogere*. 962 *quo decursum*: same metaphor III 1042 *obit decurso lumine vitae*; IV 1196 *spatium decurrere amoris*: same metaphor and constr. Cic. Tusc. I 15 *nunc video calcem, ad quam cum sit decursum, nihil sit praeterea extimescendum*. *ire et abire*, a studied assonance: see n. to I 826: *abire* a well known euphemism for *abire e vita*: Petron. sat. 42 *abiit ad plures*: Lucr. more than once uses *ire* almost in this sense: *obire* is really similar.

963—972: there is pain when the elements are disordered in their seats, pleasure when they return to their place; therefore first-beginnings themselves can feel neither pleasure nor pain, since they are not formed of other first-beginnings, whose motions can be disturbed so as to give them pain, or rearranged so as to give them pleasure. 963 *Praeterea*: Lach. has a most obscure note: the only thing it clearly shews is that he quite fails to apprehend the poet's meaning, when he reads here *Propterea*. *dolor*, and therefore sense; pain in any thing that has sense is only a disordering of its elements. 966 *voluptas*, and therefore sense. 967 *Scire* cet. therefore pleasure and pain being but the right or wrong ordering of elements, the elements themselves which are each one and indivisible, are formed of no elements which can be moved, so as to give pleasure or pain; and therefore they have no sense. 969 *non sunt ex ullis* cet. i.e. ipsa non constant ex ullis principiis: Lachmann's punctuation of this v. and explanation of the whole passage is to me quite incomprehensible: he must have quite misunderstood both sense and construction here. 970 *quorum* cet. i.e. ut dolorem capiant novitate motus eorum: *motus* is of course the gen. 972 *Haut igitur* cet. because pain and pleasure are sense. The argument may be really a begging of the question, but is perfectly intelligible: these vss. too, 963—972, clearly form a new paragraph quite distinct from the former: we might compare with them the famous say-

ing of Hippocrates de nat. hom. 2 ἐγὼ δέ φημι, εἰ ἓν ἦν ἄνθρωπος, οὐδέποτ' ἂν ἤλγεε· οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειε ἓν ἐών.

973—990: if sense must be given to the elements of living things in order that these things may have sense, then must their elements have the same passions and reasoning powers which men have; they will thus have to consist of other elements, and these again of others on to infinity: if all this is absurd, and you cannot conceive laughing or thinking atoms, why not allow generally things that have sense to come from elements without sense? 975 *propritim*, another ἅπαξ λεγόμ.: on these adverbs see n. to I 20 *generatim*: analogy would lead us to expect a form *propritus*. The argument is, if sense generally must come from sense, then the special sense of man should come from elements specially endowed with similar sense, the power of laughing crying thinking. 976 977 comp. I 919 920, in substance the same. 978 *rerum mixtura*, the way in which the elements of things are mixed to form these things. 979 even as we are now doing. 983 *sequar....ut sit*: *sequar* seems to have the pregnant sense of pressing the adversary and requiring him to admit, *insequar et flagitabo ut*: comp. I 980 *Hoc pacto sequar atque...quaeram*. 987 *doctis...dictis* recurs V 113: Virg. catal. VII 9 *Magni petentes docta dicta Syronis*, of his epicurean master. 988 *Non ex sem.* [factus]. 990 *undique* = omnino: Cic. de fin. V 69 *honestatem undique perfectam atque absolutam*.

991—1022: nay we men, as well as beasts and the fruits of the earth, may be said to have our birth from heaven as father, and earth who as mother gives us food and therefore life: death too is but the going back of our elements to heaven and earth respectively: then in a moment all forms and colours and senses perish, which depend on the motions arrangements etc. of first-beginnings; even as in this our poem a few letters produce by different arrangements etc. quite different verses.— The first part of this passage is a literal translation of a fragment from the Chrysippus of Anaxagoras' scholar Euripides, Γαῖα μεγίστη καὶ Διὸς αἰθήρ, Ὁ μὲν ἀνθρώπων καὶ θεῶν γενέτωρ, Ἡ δ' ὑγροβόλους σταγόνας νοτίους Παραδεξαμένη τίκτει θνατούς, Τίκτει δὲ βορὰν φῦλά τε θηρῶν, Ὅθεν οὐκ ἀδίκως Μήτηρ πάντων νενόμισται. Χωρεῖ δ' ὀπίσω τὰ μὲν ἐκ γαίας Φύντ' εἰς γαῖαν, τὰ δ' ἀπ' αἰθερίου Βλαστόντα γονῆς εἰς οὐράνιον Πόλον ἦλθε πάλιν· θνήσκει δ' οὐδὲν Τῶν γιγνομένων, διακρινόμενον δ' Ἄλλο πρὸς ἄλλου Μορφὴν ἰδίαν ἀπέδειξε: comp. I 250 and what is said in illustration of that similar passage about the antiquity of the doctrine that heaven is the father and earth the mother of all things. Arist. de plantis I 2 p. 817 27 expressly states that Anaxagoras taught ὅτι ἡ γῆ μήτηρ μέν ἐστι τῶν φυτῶν, ὁ δὲ ἥλιος πατήρ. Euripides repeats the same sentiment in a fragment of the Melanippe worth comparing. The whole of our passage is quite epicurean and consistent with the general argu-

ment of Lucr. though his fondness for Euripides has made him express himself in the language of Anaxagoras; with whom however as we have shewn in the first book he and Epicurus had many points of contact, points which are well brought out here. What Lucretius means to say in his poetical language is this: so far from men and other animals requiring special sensible elements, they like every thing else on earth come from the mingling of the elements of ether and earth; and at their death these senseless elements return whence they came to be employed afresh in producing other things: the elements are the same, it is only their motions arrangements etc. which make the difference; he then adds his favourite illustration from the letters of the alphabet.

991 *oriundi*, a very rare example of *i* altogether suppressed, without a parallel perhaps in the hexameter poets: *abiete ariete abiegni fluviorum principium consilium* and the like, where *i* has the power of a consonant, are common enough; for instances like ours Lach. in his learned note has to go to the old scenic poets; and some of his examples are vehemently controverted by Ritschl prisc. Latin. epigr. suppl. III p. XXI. 996 *Pabula cum praebet*: it is said to give birth to man and beast by giving them food, without which parent first and then child could not exist a moment. The poet strives to find sufficient pretext for calling earth mother. 999—1001 quoted by Lactan. inst. VII 12, who taxes Lucr. with inconsistency, 'sed victus est veritate.' 999 *Cedit* cet. Ὅθεν δ' ἕκαστον εἰς τὸ σῶμ' ἀφίκετο, Ἐνταῦθ' ἀπελθεῖν, πνεῦμα μὲν πρὸς αἰθέρα, Τὸ σῶμα δ' εἰς γῆν, says Eur. suppl. 533 or else Moschion: Epich. 263 Mullach Συνεκρίθη καὶ διεκρίθη κἀπῆνθεν ὅθεν ἦνθεν πάλιν, γᾶ μὲν ἐς γᾶν, πνεῦμ' ἄνω. 1001 *rellatum*, a solitary instance of this lengthening: V 686 *rĕlatus*: IV 761 he seems to have written *Rellicta*; which is lengthened by Lucilius also: *religio relicuus* stand of course on a different ground, as the verse requires the first syll. to be long: see n. to I 560. 1002 foll. hear Anaxagoras himself frag. 17 Schorn and Mullach, 22 Schanbach, τὸ δὲ γίνεσθαι καὶ ἀπόλλυσθαι οὐκ ὀρθῶς νομίζουσι οἱ Ἕλληνες· οὐδὲν γὰρ χρῆμα οὐδὲ γίνεται οὐδὲ ἀπόλλυται ἀλλ' ἀπὸ ἐόντων χρημάτων συμμίσγεταί τε καὶ διακρίνεται. καὶ οὕτως ἂν ὀρθῶς καλοῖεν τό τε γίνεσθαι συμμισγεσθαι καὶ τὸ ἀπόλλυσθαι διακρίνεσθαι, an aphorism which Epicurus might have wholly adopted. 1004 *et effit ut omnes res ita* i. e. et ita fit ut omnes res cet. *effiant* occurs VI 761, *effieri* Plaut. Persa 761: Lucr. has also *confieri* often and *interfieri* more than once; with *effit ut .. ita* comp. IV 944 *fit uti pars inde animai Eiciatur* i. e. inde fit uti cet.; VI 204 *Hac etiam fit uti de causa*; 727 *Quo fit uti pacto.* 1007—1009 have already occurred in substance three times: see n. to 760 foll.: they express one of the most essential of the epicurean doctrines. 1010 *penes .. Corpora prima*: comp. Ulpian in Forc. *penes te amplius est quam apud te; nam apud te est quod*

qualiter qualiter a te tenetur; penes te est quod quodammodo a te possidetur. *residere* is also an emphatic word, to be abiding, inherent: see Cic. in Forc. s. v. 1011 *quod in summis* cet. i. e. the *formas colores sensus* of 1005 1006. *in summis* contrasts with *penes*, *fluitare* with *residere*. 1013 foll. this illustration we have had again and again in words more or less like: comp. especially I 823 where *Quin etiam* introduces it and connects it with what precedes exactly as here. 1018 *discrepitant res*: VI 1105 *quia longe discrepitant res.* Observe the vagueness of *res* here, the things or results which come from the different arrangements of letters i. e. the words and verses; whereas in the very next words *Sic ipsis in rebus* and 1022 *res*, *res* has its proper sense of material things brought into comparison with the former *res* or words; so careless is he in such matters: see n. to I 875.

1023—1047: 'listen now to a question of vast moment. But nothing is so easy that it may not at first seem difficult; nothing so wondrous but people cease in the end to admire it. Look at the sky with sun moon and stars: what more marvellously beautiful? yet the world weary of the sight cares not now to give it a glance. Fear not therefore the novelty of the thing, but hear what I have to say; and if it be true, surrender; if false, gird yourself to the combat: the mind would fain comprehend that immensity into which it looks and in which it freely expatiates.' 1024 *nova res*, that which he enters upon in the next paragraph, viz. innumerable worlds in the immensity of space. *ad auris acc.*: Cic. pro Sest. 107 *ad populi Romani aures accidisse*; in Vatin. 4 *ad aures tuas accidat.* 1029 *minuant mirarier*: Ter. Andr. 392 says *nec tu ea causa minueris Haec quae facis*: the infin. does not seem harsher than this, esp. as *quod mirarier* may be looked upon as an accus.: see n. to I 331. 1034 *nunc si...si nunc*: comp. V 332 *etiam quaedam nunc artes expoliuntur, Nunc etiam augescunt*; Cic. ad Q. fratr. I 3 *ego tibi irascerer, tibi ego possem irasci*; Ovid met. I 111 *Flumina iam lactis, iam flumina nectaris ibant.* 1035 *poterat*: this use of the indic. is common enough: see Madv. Lat. gram. 348 c. 1038 *Quam tibi iam nemo..dignatur*: Lach. to IV 1203 *quam saepe* cites for this use of *quam* also I 104, VI 801, 1080. *nemo, fessus* = nemo, adeo omnes fessi sunt: such a negligence is idiomatic enough; comp. III 607 *Nec sibi enim quisquam moriens sentire videtur,...Verum deficere* cet.; IV 610 *cernere nemo Saepem ultra potis est, at voces accipere extra*: quite the same in principle is IV 70 *quanto minus indupediri Pauca queunt et sunt in prima fronte locata*, though altered by Lach. *satiate*: this form recurs V 39 and 1391: it is found also in prose, in Livy Pliny and others. 1041 *Expuere* cet.: still bolder is its application in Ter. eun. 406 *Quasi ubi illam expueret miseriam ex animo.* 1042 *vera*, 1043 *falsum*: this change of num-

ber without any substantive seems very unusual. 1043 *Dede manus*: *da manus* is the usual expression. With what precedes comp. the very similar language of the stoic in Cic. de nat. deor. II 96 *quod si hoc idem ex aeternis tenebris contingeret ut subito lucem aspiceremus, quaenam species caeli videretur? sed adsiduitate cotidana et consuetudine oculorum adsuescunt animi neque admirantur neque requirunt rationes earum rerum quas semper vident, proinde quasi novitas nos magis quam magnitudo rerum debeat ad exquirendas causas excitare*; yet just above he says of Lucr. and his school *certe ita temere de mundo effutiunt, ut mihi quidem numquam hunc admirabilem caeli ornatum.. suspexisse videantur*: such different conclusions may be drawn from the same phaenomena. 1047 *animi iactus*: see n. to 740 *animi iniectus*; and comp. Cic. de nat. deor. I 54 *cuius* [dei] *operam profecto non desideraretis, si inmensam et interminatam in omnis partis magnitudinem regionum videretis, in quam se iniciens animus et intendens ita late longeque peregrinatur ut nullam tamen oram ultimi videat in qua possit insistere.* The argument could dispense with these last four vss. and their style appears to me to have something constrained in it. I am disposed to look upon them as one of those subsequent additions of the poet, of which I have spoken above p. 22, and elsewhere.

1048—1066: space then being unlimited on all sides and atoms infinite in number, it is not likely this world should be the only one in being, since it was formed by a mere chance combination of atoms: there are then in other parts of space other like combinations of matter. 1050 *res ipsaque*: Lucr. often has *que* in the third place, not only with prepositions and their cases, even dissyllabic prepos. as V 1205 *super stellisque*; but in other instances, as here and 48, III 662, 962, IV 79, 104, 273, 824, 1010, V 680, VI 957, 1007, 1085: Virgil only with monosyl. prepos. and their cases and with *iamque namque* according to Wagner geor. I 142: II 1099 Lucr. has *ve* too in the third place, *Omnibus inve locis.* 1051 *elucet* thus coupled by a simple *et* with *docui* and *vociferatur* is somewhat awkward: one would have expected a word meaning to make clear. 1053 *Undique vorsum*: 188 *Sursus enim versus*: see Forc. for similar instances from Cicero Caesar and the best writers; *deorsum versus, utroque vorsum, quoquoversus* and the like: Gellius XII 13 20 has *undique versum.* 1054 *innumero numero*: 1086 *sed numero magis innumerali*; III 778 *Expectare immortalis mortalia membra Innumero numero*; VI 485 *Innumerabilem enim numerum*; Plautus in his own epitaph *Et numeri innumeri simul omnes collacrumarunt*, which Ritschl parergon p. 42 refers to the great variety of Plautus' metres: *in number numberless* and *numbers numberless* are common in our old writers: not unlike are *innuptas nuptiae, mentes dementes, iniustaque iusta* of other poets; and similar in effect are I 98 *casta inceste*, III 869

Mortalem vitam mors cum inmortalis ademit, v 121 *Immortalia mortali sermone* and the like. With the above vss. comp. Cic. de nat. deor. I 54 *in hac igitur inmensitate latitudinum longitudinum altitudinum infinita vis innumerabilium volitat atomorum* cet. 1058 *natura*, by natural causes, not by divine power or necessity. 1059 verses like this apparently wanting a caesura are not uncommon in Lucr. and other poets: comp. VI 197 *Conplerunt, magno indignantur murmure clausi*; in three other instances, III 612, 715, v 165, the word *inmortalis* occurs; so that in our verse and all the others it may be presumed that the preposition of the compound formed a quasi caesura; for in fact the Latins seem to have made no difference in sound between *in mortali* and *inmortali*: Lucilius ventures to write *Scipiadae magno improbus obiciebat Asellus*; and in the new corp. inscr. Lat. we find on the one hand *ab iuraverit, ad tribuere* 7 times, *ex actum, in doucimus* and many such like; on the other hand *aquo, amatre, adeum, desuo, exformula, inmanu, obeas* and a hundred such like. There is one other instance, III 258, *Nunc ea quo pacto inter sese mixta quibusque*, where *sese* may be presumed to be divided in the same way. Lachmann's distinction between a short vowel as in *forte*, and a long vowel as in *magno* or an *m* as in *quid enim inmortalibus*, so that our present verse shall not be a legitimate one, appears to rest on no reason or authority. 1060 *tem. inc. fr.*: comp. v 1002 *temere incassum frustra mare saepe coortum*; VI 319 *Nec temere omnino plane*: he delights in these poetical tautologies, for in their application here these words are synonymes: but before him Cic. Arat. 32 *Sed frustra temere a vulgo ratione sine ulla.* 1061 *coluerint*: VI 1068 *colescere*; 491 *coperiant*; but v 342 *cooperuisse* mss.: comp. *probeat* and the like, and see Lachmann's masterly note. *quae coniecta*: 1108 *Semina quae magnum iaculando contulit omne.* 1061—1063 = v 429—431, with a few variations. 1062 *exordia* here and v 430 has precisely the same force as Virg. ecl. VI 33 *ut his exordia primis Omnia* cet. i. e. the rudimentary formations of earth sea heaven etc. 1066 *avido* cet.: v 470 *Omnia sic avido complexu cetera saepsit.* There are not only other worlds, but innumerable other worlds, as he proves in the next paragraphs: with this and what follows comp. Epic. himself in Diog. Laer. X 45 ἀλλὰ μὴν καὶ κόσμοι ἄπειροί εἰσιν, εἴθ' ὅμοιοι τούτῳ εἴτ' ἀνόμοιοι.

1067—1076: nay when there is matter and place ready, and nothing to hinder, and countless atoms with the same powers as those which have formed our world, you must admit that there are other worlds with men beasts etc.—A mere variation of the last paragraph. 1069 *confieri* this form recurs several times: see also n. to 1004. 1070 *et*, 1072 *que*: *et* followed by *que* is rare, but is found even in Cicero: see de fin. v 64 and Madvig who there quotes other instances. 1070 *si*

tanta, and that this is so has been proved. 1072 *Visque eadem et natura manet*, and there is no conceivable reason for questioning this. Comp. with the above Epic. l.l. *αἵ τε γὰρ ἄτομοι ἄπειροι οὖσαι, ὡς ἄρτι ἀπεδείχθη, φέρονται καὶ πορρωτάτω· οὐ γὰρ κατηνάλωνται αἱ τοιαῦται ἄτομοι ἐξ ὧν ἂν γένοιτο κόσμος ἢ ὑφ' ὧν ἂν ποιηθείη, οὔτ' εἰς ἕνα οὔτ' εἰς πεπερασμένους, οὔθ' ὅσοι τοιοῦτοι, οὔθ' ὅσοι διάφοροι τούτῳ.*

1077—1089: again there is nothing that is sole in its kind, man beast bird or fish; and so is it also with heavens earths seas suns moons; they are all without number; since they have all birth and death on the same conditions as each thing here on earth. 1077 foll.: comp. the very similar argument in 532 foll. Epicurus' friend Metrodorus in Plut. de plac. phil. I 5 says pointedly *ἄτοπον εἶναι ἐν μεγάλῳ πεδίῳ ἕνα στάχυν γεννηθῆναι καὶ ἕνα κόσμον ἐν τῷ ἀπείρῳ.* 1080 *in primis anim.* = *primum in animalibus*: comp. IV 478 *primis ab sensibus* and the like: this use of the adj. *primus* is very common in the poets, esp. Virgil: see Wag. quaest. Virg. XXVIII 3b and 4 and 6: comp. too III 250 *postremis datur ossibus* = postremo datur oss.; quite the same in principle is II 217 and 226 *rectum per inane*, where see note. *inclute Memmi* recurs V 8: comp. Emped. 439 *κλυτὲ κοῦρε Θεανοῦς Πυθαγόρεώ τε.* 1087 *depactus terminus alte*: the sense and metaphor are the same as those of the often recurring *alte terminus haerens.* 1089 *genus omne*, whether men beasts birds or fishes, *hic* in this earth: *generatimst abundans*: III 396 *est animus.. coercens.* Lach. quotes Manil. I 858 *Ignibus usque adeo natura est omnis abundans*: comp. also V 389 *Has erit et similis tribuens olor aureus artes*; 397 *Quisquis erit tali cupiens sub tempore vitam.* 1087—1089 the argument seems to be, since all these things are mortal and had a beginning, they must be subject to the same conditions as other mortal things: in fact as repeated by Plutarch Cicero and others, Epicurus taught that innumerable worlds were daily coming into being and daily perishing.

1090—1104: the knowledge of these things will rid you of fear of the gods; for how could any being rule these numberless heavens and earths? how could he hurl his bolts at once in so many places, bolts too which often destroy the innocent and miss the wicked? 1090 *si teneas*: the force of the potential is like that of 36 *Iacteris*, where see note. 1092 *sua sponte*: though Lucr. elsewhere and the poets generally for obvious reasons say *sponte sua*: *sua sponte* is the common order in prose. *dis expers*: this construction seems peculiar to the older writers. It is worth comparing these vss. and the cognate passages such as V 86 foll. VI 62—79, also III 14 foll. V 8 *deus ille fuit deus*, with Cic. Tusc. disp. I 48 *soleo saepe mirari nonnullorum insolentiam philosophorum qui naturae cognitionem admirantur eiusque inventori et principi gratias exultantes agunt eumque venerantur ut deum; liberatos enim se per eum*

dicunt gravissimis dominis, terrore sempiterno et diurno ac nocturno metu. quo terrore? quo metu? quae est anus tam delira quae timeat ista, quae vos videlicet, si physica non didicissetis, timeretis? But Lucr. was no augur: he meant what he said, and thought that others did the same. Cicero's philosophical works were all written within a few years after this poem was published, and they afford many proofs that Cicero was familiar with its language: it was not his usage to quote the actual words of contemporaries. 1093—1104 are very similar to the longer passage VI 387—422. 1095 *profundi* is a subst. agreeing with *immensi*: see n. to I 1002. 1096 *Indu*: see n. to I 82. *moderanter* a ἅπαξ λεγόμ.: *moderanter habere habenas*=moderari habenas. 1097 *caelos* in the plur. because he has no other way of expressing all the different heavens in the universe, just as *we* must say 'earths' for a like purpose; otherwise the plur. is quite unknown to classical writers. 1098 *suffire* seems to have the sense of to warm only here: IV 1175 *se suffit odoribus*, it has its proper force. 1099 for position of *ve* see n. to 1050. 1100 *caeli serena* is opposed to the *nubibus*: the *sonitus* arises in the *nubibus* and shakes the *caeli serena* at a distance; for VI 99 *Nec fit enim sonitus caeli de parte serena* and so 400 foll.: with this compare VI 96 *Principio tonitru quatiuntur caerula caeli Propterea quia concurrunt sublime volantes Aetheriae nubes*; comp. too 285 *Quem gravis insequitur sonitus, displosa repente Opprimere ut caeli videatur templa*, and 387 *Quod si Iuppiter atque alii fulgentia divi Terrifico quatiunt sonitu caelestia templa*: the *sonitus* or thunderclap is confounded with the thunder itself; as in Ter. eun. 590, imitated by Lucr., *At quem deum! qui templa caeli summa sonitu concutit.* 1101 *et aedis* cet.: comp. VI 417 foll. and Cicero cited there which Lactant. inst. III 17 compares with our passage: *in libris consulatus sui eadem dixit quae Lucretius*, Nam pater cet. 1102 *in deserta recedens*: comp. VI 396. 1103 *quod saepe* cet. enlarged upon VI 390—395. 1104 Seneca nat. quaest. II 46 is asked by the epicurean Lucilius *quare Iuppiter aut ferienda transit aut innoxia ferit?* and prudently evades the question.

1105—1174: and after our world was born, many elements were ever added to it so as to increase all its parts, until it attained its full growth: even thus things which you see growing take in more elements as food than they give forth, until they reach their maturity; then they gradually decay, and exhale more than they take into their veins; until from inward rarefaction and outward blows they perish completely: even thus will our world perish: already our earth has begun to fail, and can no longer produce what once it did: tillers and vinedressers spend their labour in vain and regret the olden time, not knowing that the earth like everything else must come to its end. 1105 *Multaque* cet. is a continuation of the argument broken off at

1089, especially of that contained in 1058—1063, the intervening vss. 1090—1104 containing one of his many impassioned appeals. *diemque Primigenum—coortum* is a mere poetical repetition of the preceding words. 1106 *Primigenum* is a rare word, for which lexicons only cite Avienus besides Lucr.: perhaps he wished to translate the Homeric πρωτόγονος. 1107 *corpora* and *Semina* are of course synonymes. 1110 *Appareret*: I find no other example of the use of this verb which is here very expressive: Faber compares the Greek προσκτᾶσθαι *caeli domus*: he may have been thinking of Ennius' strange *divum domus altisonum cael*: Aen. x 1 *domus omnipotentis Olympi*: but Lucretius' expression implies more. 1111 *consurgeret*: one can hardly say whether this is simply for *surgeret*, or, what is more graphic, for *undique circum surgeret*, or even *surgeret una cum caelo*. This formation of our world is much more fully delineated v 449—508: above, 1058—1063, he described the *exordia* of this world; here he pictures its completion. 1112 *plagis*: these blows of atoms are, as we have so often seen before, the chief cause of the formation and conservation of things, by enabling the atoms to clash and try all kinds of union, until some suitable one is found. 1114 *umor, terra, ignes, aether* are used here loosely and poetically for the elements fitted by their shape etc. to assist in forming water earth etc. 1115 *procudunt*, as III 1081 *Nec nova vivendo procuditur ulla voluptas*; v 850 *propagando procudere saecla*; 856 *propagando procudere prolem*. *aetheraque aether*: for *aeraque aer*, since the poet here employs Empedocles for his own purpose, just as 991 foll. he made use of Anaxagoras and Euripides: Emped. 270 πυρὶ δ' αὐξάνεται πῦρ, αὔξει δὲ χθὼν μὲν σφέτερον δέμας αἰθέρα δ' αἰθήρ: in form his vss. are rather a reminiscence of the more famous vss. 321 Γαίῃ μὲν γὰρ γαῖαν ὀπώπαμεν ὕδατι δ' ὕδωρ Αἰθέρι δ' αἰθέρα δῖον, ἀτὰρ πυρὶ πῦρ ἀΐδηλον: elsewhere too Emped. thus uses αἰθήρ, as 105 Πῦρ καὶ ὕδωρ καὶ γαῖα καὶ αἰθέρος ἤπιον ὕψος, and 216. Lucr. has probably only followed Empedocles here; but see n. to I 250 *aether*, where it is shewn that he sometimes uses the word strictly, sometimes for the upper regions generally and the seat of rain: thus in one place he has *aetheriae nubes*, in another *innubilus aether*, in a third *aetherias auras*. 1116 *Donique*: this form of *donec* recurs v 708, 723, 997. *donicum* is quite unknown to him. *perfica* = perfectrix. 1119 *venas* seem here and elsewhere to include the arteries as well as veins. 1121 *refrenat* a favourite word of his. 1122 *adauctu*, used by Lucr. alone of good writers. 1126 *dispessa*: see notes 1: it must agree with *quaecumque*, and refer to things which have attained the fulness of their growth: the atoms are *dispersa*, but not the *res*: for form comp. Gellius xv 15 *Plautus in milite glorioso* [360] *a littera in e mutata, per compositi vocabuli morem dispessis dicit* cet. 1127 *vescitur* is quite suitable here:

eats, i.e. takes in as food. 1129 *manus dandum est*: see n. to I 111. 1133 *res amplior...et latior*, with reference to 1126 *dispessa*: for involved arrangement of words see n. to III 843. 1135 *modo* has reference, as Lach. says, to *augmine adempto*; but *modo* used of present or future time is rare: see Forc. who quotes Ter. ad. 289 *modo dolores, mea tu, occipiunt primulum*, and the remark of Donatus *evidenter hic* modo *temporis praesentis adverbium est*. *modō*, as IV 1181 *Una modō*: it is also long, as Lach. shews, in Plautus Terence Lucilius and Cic. Arat. frag. 8 *Huic non una modo caput*. *dispargit*: III 539 and IV 895 *dispargitur*; III 661 *conspargere*; V 371 *exspargi*; VI 525 *aspargine*. 1137 *proquam*: III 199 *parvissima corpora proquam...ita*; VI 11 *proquam posset*: the word seems not to be found out of Lucr.: Lach. to VI 11 'aeque Latina sunt *pro ut, prae ut, pro quam, prae quam*, neque ab his differunt *praeter quam, post quam, ante quam, super quam*.' 1138 *tantum* answers to *proquam*, as III 200 *ita*. *subor. ac subp.*: see n. to I 996 *infernaque suppeditantur*. 1139 (1146) *cibus, cibus, cibus* may be compared with the instances given in n. to 955 *vincere saepe, Vincere*: the designed effect is the same, to obtain emphasis by iteration. 1140 (1147) *fulcire cibus*: Hor. sat. II 3 153 *Deficient inopem venae te, ni cibus atque Ingens accedit stomacho fultura ruenti*; Sen. epist. 95 22 *dare cibum saepius et vino fulcire venas cadentes*. 1144 (1140) *omnia*: see n. to I 15 *capta...quamque*. 1146 (1142) *tuditantia* = crebro tundentia, and recurs III 394: Enn. ann. 138 *tuditantes*.

1148 (1144) *Sic igitur* cet.: the world will have the fate of all mortal things: it has attained its full growth and begun to decay, and must finally perish.—A new paragraph ought not to commence here; as the preceding illustrations have been merely given with reference to this, and it is a direct continuation of the argument of 1105 foll. more especially of 1116 foll. from which it cannot be separated. 1149 (1145) *Expugnata* cet.: keeping up the metaphor of the *moenia*, which expression has been explained in I and will be further illustrated in V. *dabunt labem—ruinas*: see n. to IV 41: *dare ruinas* occurs several times in Lucr. for *ruere*; *labem* appears to be here used in its primary sense of the sinking and giving way of the ground: see Forc. 1150 *Iamque adeo*: *adeo* merely strengthens the *iam*, even now, now already; it is a favourite expression of Virgil: Wagner quaest. Virg. XXVI 4 cites Aen. II 567, V 268, 864, VIII 585, XI 275, 487. 1151 *anim. parva*: the *vermiculi* and the like, alluded to more than once above; comp. too V 797 *Multaque nunc etiam existunt animalia terris Imbribus et calido solis concreta vapore*. *quae cuncta* cet. as told at length V 780 foll. 1152 *dedit...partu*: Aen. I 274 *geminam partu dabit Ilia prolem*. 1153 *superne*, a favourite word of Lucr. generally with him meaning 'overhead'; here however and in one or two other places it certainly

seems to have the force of *desuper*, and might perhaps be cited by those who assert that *super* may have that sense. 1154 *Aurea...funis*: Gellius XIII 21 (20) 21 *Lucretius aequis auribus inserviens* funem *feminino genere appellavit in hisce versibus* Haut cet. *cum dicere usitatius manente numero posset* Aureus e caelo cet.: see too Quintil. inst. I 6 6. Lucr. alludes no doubt to the *σειρὴ χρυσείη* of Homer, but probably also to some stoical allegorising of the same: we know from Marcus Aurel., Eustathius p. 695 at beg. and others that the stoics connected it with their *εἱμαρμένη*; and Themistius orat. 32 p. 363 c proves that it was used in the way hinted at by Lucr.: *ὁ φιλότεκνος ἀξιέπαινον πάθος ἐστὶ καὶ οὐκ ἔοικε τῷ φιλοχρηματῳ ἢ τῷ φιλαργύρῳ. ἐκεῖνα μὲν γὰρ τὰ ὀνόματα εἰκότως παρὰ τοῖς ἀνθρώποις ὀνείδη λέγεται καὶ ἔστιν· οὐ γὰρ ποιεῖ αὐτὰ ἡ φύσις, ἀλλ' ἡ μοχθηρία ἡ ἡμετέρα. τοῦτο δὲ ἄνωθεν αὐτῇ ἐνδέδοται ἐκ τοῦ οὐρανοῦ καὶ ἐξῆπται ἐκείνης ἀτεχνῶς τῆς χρυσῆς καὶ ἀρρήκτου σειρᾶς, δι' ἧς ξυρράπτουσα ἀεὶ καὶ ξυγκολλῶσα τῷ φθίνοντι τὸ φυόμενον οὐκ ἀπολισθαίνειν ἐᾷ εἰς τὸ μὴ εἶναι.* 1159 *fetus* are the *arborei fetus* or *fructus*: he thus enumerates corn vines fruits of trees and pastures, the four chief products of the earth: comp. V 783 and 786: thus too Virg. geor. I 54 *Hic segetes, illic veniunt felicius uvae, Arborei fetus alibi atque iniussa virescunt Gramina*; but his *Arborei* leaves no ambiguity: 1163 *fetus* is more general. 1162 *vix arvis supped.*: *suppedito* is often the opposite of *desum* or *deficio*, as Cic. Brutus 124 *cum et vita suppeditavisset et splendor ei non defuisset*; Plaut. asinar. 423 *non queo labori suppeditare*; as then Lucr. says indifferently *Materies ut suppeditet rebus* and *suppeditantur corpora materiai*, it seems quite allowable to say *vix arvis suppeditati* in the sense in which Plautus l. l. uses *suppeditare*. 1165 *manuum labores*: Ovid met. IV 39 *Utile opus manuum*: comp. too I 209 *manibus melioris reddere fetus*. 1168 (1170) *crepat*: see Forc. 1171 (1168) *victae*, as also in Terence: Hor. epod. XII 7 *victis*. 1172 (1169) *momen*: the metaphor seems to be from the *momentum* or sway of the balance. *caelumque fatigat*: Lach. compares Phaedrus IV 20 (19) 24 *Caelum fatigas sordido periurio*. 1173 *Nec tenet*: III 649 *Nec tenet amissam laevam* cet.; 1070 *morbi quia causam non tenet*; VI 83 *est ratio caeli speciesque tenenda*. 1174 *ire Ad capulum*: the *capulus* was the bier or funeral-bed; hence the obvious metaphor: Plautus uses *capuli decus* and *capularis* in jest for one near death. Paulus Fest. and Nonius make the word *capulum*, and the latter explains it as 'sarcofagum, id est sepulchrum'; but comp. Stat. Theb. III 361 *dum funera portant, Dum capulo nondum manus excidit*. *vetusto* seems harsh as an epithet of *spatio*; yet it recurs III 774 *aetatis spatio ne fessa vetusto*, and V 827 *mulier spatio defessa vetusto*; so that it seems a mere periphrasis for *vetustate*.

BOOK III

1—30: he addresses Epicurus as his father and guide, who had dispelled the darkness of error, explained the whole nature of things, revealed the gods and their blest abodes, and destroyed the belief in Acheron. 4 *Ficta* is the older form, the *t* being softened into *s* in *fixus*: Diomedes I p. 377 11 *reperimus enim* fictus *et* fixus; *Scaurus de vita sua 'sagittis' inquit 'confictus'* cet. *pedum pono* cet.: Wak. quotes Ovid met. II 871 *Falsa pedum primis vestigia ponit in undis.* 5 it is not clear whether *Non ita cer. cup.* is a distinct clause *Non tam quod certare cupio, quam quod* cet., or depends like *propter amorem* on *Quod te im. aveo.* 7 *Cycnis*: its position is meant to be emphatic. 9 *patria* is said with reference to *pater*: thou, o father, like a father. 10 *tuisque ex*: see n. to I 841. 11 *omnia, Omnia..aurea, Aurea*: comp. n. to II 955 *vincere, Vincere.* 12 *depascimur..dicta*: Eur. Med. 821 ἀποφερβόμενοι κλεινοτάταν σοφίαν. 14 *vocif.*: see n. to I 732. 17 *Discedunt* is here used in what seems its primary sense: see Forc. *video*: the walls of the world part asunder and allow me to see into the boundless void. 18 *sedesque quietae*: the μετακόσμια, which Cicero renders *intermundia*: these the ἰσονομία or *aequalis tributio* of Epicurus required to be as many as the *mundi*, that is to say innumerable: that Epic. and Lucr. believed in these *intermundia* is certain; but how they are consistent with their general system, is as difficult to comprehend as the rest of their firm belief in gods: see what is said on this question to II 646—651, and V 146 foll. and 1161 foll. 19 *Quas neque concutiunt* cet.: like the island-valley of Avilion, *Where falls not hail or rain or any snow, Nor ever wind blows loudly.* 20 *neque nix* cet.: VI 845 *Frigore..quasi concrescit*; Virg. geor. II 376 *Frigora nec tantum cana concreta pruina.* 21 *innubilus* coined by him to render Homer's ἀνέφελος, for these vss. are from Odys. ζ 42 ὅθι φασὶ θεῶν ἕδος ἀσφαλὲς αἰεὶ Ἔμμεναι. οὔτ' ἀνέμοισι τινάσσεται οὔτε ποτ' ὄμβρῳ Δεύεται οὔτε χιὼν ἐπιπίλναται, ἀλλὰ μάλ' αἴθρη Πέπταται ἀνέφελος, λευκὴ δ' ἐπιδέδρομεν αἴγλη. 24 *delibat*: 1088 *nec delibare valemus*; comp. too VI 70 *Delibata deum per te tibi numina.* 25 *nusquam apparent*, because he has proved them not to exist. *Acher. templa*: see n. to I 120. 26 *Nec tellus*: it is not the earth which hides them, as his philosophy shews what is below as clearly as what is above the earth. 28 *voluptas..adque horror*: Petron. sat. 83 *Protogenis rudimenta cum ipsius naturae veritate certantia non sine quodam horrore*

tractavi. Wak. cites Stat. Theb. I 493 *laetusque per artus Horror iit*; and Pacuvius 224 *horror percipit.* 30 *manifesta* is in apposition with and explains *patens*: comp. 21 *Cana cadens.*

31—93: I have now to explain the real nature of the soul and to dispel the terrours of hell which poison life: many boast they know all this, but when tried by adversity, they choose to suffer any misery rather than face death and its consequences: nay often men from this fear will commit any crime, in order to get wealth and honour, thinking that want and contempt destroy the security of life; hence civil war, hence hatred of relations; hence men often rush to death from fear of death: this fear in short is the source of all evils; and can be destroyed only by the true knowledge of nature. 31 *cunct. exor. rer.* = rerum primordia: see n. to I 55 and II 333. 34 *Quove*: see n. to I 57. 36 *claranda*: IV 777 *multaque nobis Clarandumst.* 37 *Et metus* cet.: see n. to I 78. 40 *Esse..relinquit*: Lucr. is fond of this construction: I 515 *solidum constare relinquas*; 703 *quidvis tamen esse relinquat*; VI 654 *mirari multa relinquas. vol. liq. pur. rel.*: Epic. in Diog. Laer. X 143 ὥστ' οὐκ ἦν ἄνευ φυσιολογίας ἀκεραίους τὰς ἡδονὰς ὑπολαμβάνειν. 42 *Tartara leti*: Virg. geor. IV 481 *intima leti Tartara.* 43 comp. Emped. 317 Αἷμα γὰρ ἀνθρώποις περικάρδιόν ἐστι νόημα: Arist. de anim. I 2 p. 405 b 6 attributes this theory to Critias, and says there that each of the elements has an advocate to claim for it to be the soul except earth: comp. too Cic. Tusc. disp. I 19: for this and the next v. there was great play of words on the connexion between *animus*, ἄνεμος, and *ventus*: see Lactant. de opif. dei XVII. 45 *Nec prosum* see n. to I 748. *prosum*, as in 514; so *introsum* once and *rusum* three times in A and B: this suppression of *r* after a long vowel before *s* was very common: *susum* three times and *suso vorsum* occur in the sent. Minuc. corp. inscr. Lat. I 199. 51 *tamen*, though they make these boasts and though they are in such misery, instead of shewing a contempt of death, they have recourse to the meanest superstitions in order to escape it. 52 *nigras* cet.: Virg. geor. IV 545 *Inferias Orphei Lethaea papavera mittes Et nigram mactabis ovem*; Aen. VI 153 *Duc nigras pecudes.* 62 *Noctes—opes* = II 12 13. 64 *Non min. partem*: VI 1259 *Nec minimam partem*; 1249 *Inde bonam partem*: the same constr. is found in Cicero Caesar Livy; and in fact *partim* is an accus. 65—67 and so by their wealth they think to put off death or at all events the thoughts of death. 65 *ferme*: see n. to I 14 *ferae* (*fere*). 67 *cunctarier* the infin. as a subst.: see n. to I 331. 68 *Unde...effugisse..longeque remosse*: *ea* must be supplied to *remosse* out of *unde*; as 22 *Integit* and what precedes have the accus., to *rident* a nomin. is understood: comp. too 1018. 71 *caedem caede accum.*: VI 1238 *cumulabat funere funus*; Cic. de off. I 116 *Africanus eloquentia cumulavit bellicam gloriam*; in Catil. I 14 *nonne etiam alio incredibili*

scelere hoc scelus cumulasti. 72 compared by Macrob. sat. VI 2 15 with Virg. geor. II 510 *gaudent perfusi sanguine fratrum.* 76 *claro honore*, with the purple and other insignia of high office. 78 *Intereunt* cet.: Enn. ann. 403 *Reges per regnum statuasque sepulchraque quaerunt, Aedificant nomen*; Epic. in Diog. Laer. X 149 quoted by Lach. speaks of desires neither natural nor necessary, ὡς στεφάνους καὶ ἀνδριάντων ἀναθέσεις. 80 *Percipit* cet.: Ter. eun. 972 *Neque agri neque urbis odium me umquam percipit. humanos* = homines; as 837 *Omnibus humanis*, where see note: Forc. cites Varro in Nonius p. 81 *Natura humanis omnia sunt paria.* 81 Epicurus appears to have dwelt on this topic: comp. Sen. epist. 24 22 *item alio loco dicit* [Epicurus] '*quid tam ridiculum quam adpetere mortem, cum vitam inquietam tibi feceris metu mortis?' his adicias et illud eiusdem notae licet 'tantam hominum inprudentiam, immo dementiam, ut quidam timore mortis cogantur ad mortem.*' 84 *evert. fundo*: Aen. X 88 *Phrygiae res vertere fundo*: to keep *suadet* of mss. and thus violently change the construction at 83, making *Hunc, hunc* = hunc hominem, illum hominem; and *timor* nomin. to *suadet*, would be intolerably harsh; although it is not very clear what exact relation 83 and 84 have to what precedes. 87—93 = II 55—61, where see notes; and VI 35—41.

94—135: well first the mind, *animus* or *mens*, is a part of man, as much as the foot or head: some deny this and affirm the mind's sense to be a harmony or certain life-giving state of the body by which we have sense, though the mind is nowhere: they are quite wrong; for often the body is sick, while the mind is happy; the mind is wretched, when the body is well; just as the foot may be sore, when the head is whole: again the body is often asleep and without sense, while something in us is moved by various passions. Next the soul too or *anima* is in the body and no mere harmony; for often much of the body is taken away, while life continues; and often when a few particles only of heat and air quit it, life is gone; so that you see some elements are more important for life than others: this harmony therefore is nothing. 94 *Primum*: he first shews that the *animus* is a part of the body, being in fact in the region of the heart: see 140 foll.: then 117 foll. he proves the *anima* also to be a part; being in fact spread over the whole body: see 143 foll. *animum..mentem quam*: 99 *habitum quendam..Harmoniam Grai quam dicunt*; 555 *homine, illius quasi quod vas esse videtur*; IV 132 *in hoc caelo qui dicitur aer.* See Lach. and comp. Cic. de leg. I 22 *animal hoc...quem vocamus hominem*; de rep. VI 21 (somn. Scip. VI 3) *illo mari, quod Atlanticum, quod magnum, quem oceanum appellatis in terris, qui tamen* cet.: according to Madvig's rule, Lat. gram. 316, Cicero in our passage would have written *mentem quem* with AB; 99 and IV 132 he would have agreed with Lucr., but not III 555. Lach. is to

me obscure and ambiguous here. *animum, mentem*: see n. to I 74 *mente animoque*: the words are, as Lucr. here intimates, perfect synonymes all through this book: 139 *Consilium quod nos animum mentemque vocamus* gives us a third synon. 97 *oculei*: I 230 *ingenuei*; IV 602 *vitrei*: in these places our mss. have preserved this old spelling, which doubtless Lucr. himself employed much oftener; and which appears slightly disguised in the mss. in I 1114 *sei*, V 201 *avidei*, VI 16 *cogei*, 1195 *trucei*, 1199 *ibei*: the same diphthong is found in the middle of the word in VI 1217 *exeiret*, 1221 *Exeibant*. 100 *Grai* are the Greeks who maintain this theory. *quod faciat* refers to the *habitum vitalem* or life-giving and life-supporting ἕξις. The chief of these *Grai* was Aristoxenus a pupil of Aristotle and a famous writer on music: Cic. Tusc. disp. I 19 says *Aristoxenus musicus idemque philosophus ipsius corporis intentionem quandam, velut in cantu et fidibus quae harmonia dicitur; sic ex corporis totius natura et figura varios motus cieri tamquam in cantu sonos. hic ab artificio suo non recessit et tamen dixit aliquid, quod ipsum quale esset erat multo ante et dictum et explanatum a Platone*: he refers apparently to Phaedo 80 foll. p. 86 foll. where the Theban Simmias asserts that the soul is ἁρμονία τις and is afterwards so triumphantly refuted by Socrates: comp. too Lactant. inst. VII 13 *quid Aristoxenus qui negavit omnino ullum esse animum, etiam cum vivit in corpore? sed sicut in fidibus ex intentione nervorum effici concordem sonum atque cantum quem musici harmoniam vocant, ita in corporibus ex compage viscerum ac vigore membrorum vim sentiendi existere*: this would connect him with his fellow-pupil Dicaearchus, a favourite of Cicero, who says of him Tusc. disp. I 21 that he held *nihil esse omnino animum et hoc esse nomen totum inane...vimque omnem eam qua vel agamus quid vel sentiamus, in omnibus corporibus vivis aequabiliter esse fusam nec separabilem a corpore esse, quippe quae nulla sit nec sit quicquam nisi corpus unum et simplex, ita figuratum ut temperatione naturae vigeat et sentiat*; and 51 he joins the two. 106 *Saepe itaque*: to prove what I say, often then. *aegret* recurs 824, *morbis cum corporis aegret*, and is hardly found elsewhere. 113 *honustum* is too well attested for us to regard it as a corruption: Servius to Aen. I 289 '*oneratus* aspirationem non habet, quia ab *onere* venit; *honustus* vero, quia etiam ab *honore* descendit, retinet aspirationem.' 116 *inanis*, the vain fancies of a dream. Both the above reasons prove the *animus* to be a distinct part, not a mere state of the whole body, as Aristoxenus says.

117 *animam*: this as shewn in the next paragraph is spread over the whole body: he proceeds to prove that it, as well as the *animus*, is no harmony, because often a large portion of the body, say the arms and legs, might be taken off, and life remain, while often the smallest punc-

ture in a more vital part will cause death. 125 *corpora, prima* of course = 127 *Semina.* 132 *ad organicos*, to musicians like Aristoxenus. *delatum Heliconi* cet. whether this name came from the muses, or whether they got it themselves from some other source and applied the general term ἁρμονία or fittingness to musical tune. *in illam.. quae res*: see n. to I 15 *capta.. quamque.* 135 *habeant*: Wak. compares Cic. de amic. 18 *quare sibi habeant sapientiae nomen et invidiosum et obscurum.* There is a contemptuous irony in these last vss. not unlike what Cicero Tusc. disp. I 41 uses: *alter* [Aristoxenus] *ita delectatur suis cantibus ut eos etiam ad haec transferre conetur. harmoniam autem ex intervallis sonorum nosse possumus...membrorum vero situs et figura corporis vacans animo quam possit harmoniam efficere non video. sed hic quidem, quamvis eruditus sit, sicut est, haec magistro concedat Aristoteli, canere ipse doceat*: Cicero means to say his master would have taught him better on this head, though he were a better teacher of singing himself: comp. Arist. de anima I 4 at beg. *καὶ ἄλλη δέ τις δόξα παραδέδοται περὶ ψυχῆς...ὥσπερ εὐθύνας δεδωκυῖα καὶ τοῖς ἐν κοινῷ γιγνομένοις λόγοις*, i.e., as Bernays die dialoge des Arist. p. 14 foll. says, in his celebrated dialogue Eudemus where this theory was discussed and refuted: in p. 27 is quoted from Philoponus a very interesting fragment of this dialogue bearing on the argument mentioned by Lucr. 102 *Ut bona saepe valetudo* cet.: it concludes *εἰ τοίνυν ἡ ἀναρμοστία* [*τοῦ σώματος*] *νόσος καὶ ἀσθένεια καὶ αἶσχος, ἡ ἁρμονία ἄρα ὑγίεια καὶ ἰσχὺς καὶ κάλλος. ψυχὴ δὲ οὐδέν ἐστι τούτων, οὔτε ὑγίεια, φημί, οὔτε ἰσχὺς οὔτε κάλλος. ψυχὴν γὰρ εἶχεν καὶ ὁ Θερσίτης αἴσχιστος ὤν· οὐκ ἄρα ἐστὶν ἡ ψυχὴ ἁρμονία.* The peripatetics at this time began to make a great stir, and Lucr. appears more hostile to them than any except the stoics: their philosophy was in most points very adverse to his.

136—160: the *animus* and the *anima* make up one nature, but the *animus* is the ruling part in the whole body and is situated in the region of the heart; the *anima* being spread through the body: sometimes the *animus* feels, when the *anima* does not; but under any violent emotion we see the *anima* sympathise throughout the frame with the *animus*: the *anima* therefore is united with the *animus*, and being moved by it, stirs the whole body. 136 *coniuncta*, the neut. as usual when referred to two subst. of different genders; but 416 *Hoc anima atque animus vincti sunt foedere semper*: 66 I have obeyed Lamb. and Lach. in reading *Semota.. videntur* for *videtur*: the change is slight; but perhaps it is wrong to refuse to Lucr. the same liberty which other writers claim: Cic. pro Cluent. 146 can say *mens et animus et consilium et sententia civitatis posita est in legibus.* 140 *Idque situm* cet.: Epic. in Diog. Laer. X 66 *τὸ μέν τι ἄλογον* [i.e. the *anima*] *αὐτῆς* [*τῆς ψυχῆς*] *ἐν τῷ λοιπῷ παρεσπάρθαι σώματι, τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἔκ τε τῶν φόβων*

καὶ τῆς χαρᾶς. Arist. de part. an. II 10 p. 656 28 says that the ἀρχὴ τῶν αἰσθήσεών ἐστιν ὁ περὶ τὴν καρδίαν τόπος: so with Epicurus the *animus* was not the heart, but in or about the heart: Cic. Tusc. disp. I 19 *aliis nec cor ipsum placet nec cerebri quandam partem esse animum, sed alii in corde, alii in cerebro dixerunt animi esse sedem et locum*: the heart had more advocates than the brain. *regione in pectoris*: Lucr. is fond of this position of the prep.: 463 *morbis in corporis*; 824 *morbis cum corporis*; IV 335 *oculis in eorum*; VI 1074 *uno Corpore cum lanae*; 1265 *silanos ad aquarum*; IV 547 *validis cycni torrentibus ex Heliconis*. 141 *Hic* cet.: comp. Epic. l.l. 142 *Laetitiae*: Cicero twice quotes from Caecilius *omnibus laetitiis*: Pompon. 141 *laetitias*: so V 48 *desidiaeque*. *hic ergo*: the τὸ λογικόν of Epicurus, the *consilium, mens or animus* of Lucr. 143 *per totum dissita corpus*, a translation of Epic. l.l. παρ' ὅλον τὸ ἄθροισμα παρεσπαρμένον. 144 *numen* here perhaps unites the physical sense which it has II 632 and IV 179, and the metaphorical sense of will, much as Catul. LXIV 204 *Adnuit invicto caelestum numine rector Quo* cet. *momen* again the ῥοπή or sway of the balance. 145 *Idque*, the *consilium* of 139 and 140. Attius 296 *Sapimus animo, fruimur anima: sine animo anima est debilis*. 147 *Et quasi* cet.: the eye and the head may be affected without the rest of the body feeling with them, but when these are more violently assailed by disease, the rest of the body sympathises, shewing thus that it is one with them: so it is with the *animus* and *anima*. 155 *infringi linguam*: the καμ μὲν γλῶσσα ἔαγε of Sappho; for doubtless Lucr. was here thinking of her famous ode. *aboriri*: V 733 he has the unexampled form *aboriscor*. 156 *sonere* recurs 873; and is common enough in the older writers. 160 *exim* is the spelling of our mss. and of the best authorities. *icit*: IV 1050 *unde icimur ictu*: the phrase *foedus icere* is found in Cicero: see Forc.

161—176: the *animus* and *anima* are therefore bodily also, since they can move and direct the body; for this cannot be without touch nor touch without body: the *animus* too suffers with the body, when the latter is wounded: it must then be bodily, since it suffers from bodily weapons. 161 *Corpoream*: Epic. l.l. 63 says ὅτι ἡ ψυχὴ σῶμά ἐστι λεπτομερὲς κ. τ. λ. 163 *Cor. ex som. cor.*: Aen. IV 572 *corripit e somno corpus*. 165 *Quorum*, 166 *Nec tactum*: comp. II 140, and see n. to I 718. 168 *fungi*: see n. to I 441. 170 *Si*: see n. to II 80. 171 *intus* appears to belong to *disclusis*, and *adactus* is used, as Aen. IX 431 *sed viribus ensis adactus Transabiit costas*: those who would join *intus* with *adacta* might appeal to VI 23 where *intus* would go most naturally with *receperat*: I 223, II 711 and IV 1091 *intus*, properly explained, has its proper force. 173 *Segnis*: with this might be compared Aen. X 699 *poplite Palmum Succiso volvi segnem sinit*. *in terra*

is opposed to *terrae petitus*: when one is down on the ground. 176 comp. with what precedes Epic. l.l. 67 *καθ' ἑαυτὸν δὲ οὐκ ἔστι νοῆσαι τὸ ἀσώματον πλὴν ἐπὶ τοῦ κενοῦ· τὸ δὲ κενὸν οὔτε ποιῆσαι οὔτε παθεῖν δύναται, ἀλλὰ κίνησιν μόνον δι' ἑαυτοῦ τοῖς σώμασι παρέχεται· ὥσθ' οἱ λέγοντες ἀσώματον εἶναι τὴν ψυχὴν ματαΐζουσιν· οὐθὲν γὰρ ἂν ἐδύνατο ποιεῖν οὔτε πάσχειν, εἰ ἦν τοιαύτη· νῦν δ' ἐναργῶς ἀμφότερα ταῦτα διαλαμβάνομεν περὶ τὴν ψυχὴν τὰ συμπτώματα.*

177—230: the *animus* consists of very small round atoms, which can move with extreme celerity and ease; for nothing is so swift as thought: of visible things those which move most easily, as water, are composed of very small round elements: those of the *animus* then must be eminently subtle. Again the fineness and smallness of the substance of the *animus* and *anima* are shewn by this: after death, when they have left the body, it is not perceptibly diminished in size or weight; you may compare it with wine whose flavour is gone or the like: the elements which compose this flavour are very minute; and their absence does not lessen the weight and bulk of the wine. 177 *animus*: it will be seen, by comparing 208 *eius* with 212 *animi natura animaeque* and the rest of the section, that here too he includes the *anima* in the term *animus*; though it is not till 421 that he tells us that when he uses one word he intends to comprise the other as well, where the one is not expressly distinguished from the other. It is his general practice, as we have often seen, to keep distinct similar words, when his argument requires it, to use them indifferently, when precision is not called for. *corpore* is here used in its most general sense for material substance. 184 *res ulla.. quorum*: see n. to I 883. 186 *constare rutundis* cet.: Diog. Laer. x 66 *ἀλλὰ μὴν καὶ τόδε λέγει ἐν ἄλλοις, καὶ ἐξ ἀτόμων αὐτὴν συγκεῖσθαι λειοτάτων καὶ στρογγυλωτάτων, πολλῷ τινι διαφερουσῶν τῶν τοῦ πυρός.* 189 *flutat*: IV 77 *flutant* from a probable conj. of Turnebus. Macrob. sat. III 15 8 (II 11) quotes from Varro's Gallus de admirandis '*in Sicilia quoque*' *inquit* '*manu capi murenas flutas, quod eas in summa aqua prae pinguedine flutentur*'. 190 and 246 *figuris*: see n. to II 385. 192 *actus*: Aen. XII 687 *Fertur in abruptum magno mons improbus actu*: Paulus exc. Fest. p. 17 explains it as *modo motum corporis, ut histrionum et saltatorum.* 196—202 after his wont he gives an example of what we see before our eyes in order to illustrate his argument: a heap of poppy-seeds which are small and round a breath disperses, a heap of stones a violent wind cannot stir. 196 *papaveris* is put out of its place at beg. of the sentence to render more vivid its contrast with 198 *lapidum*: see n. to 843 and II 250. *suspensa*: V 1069 *Suspensis.. dentibus.* 197 *tibi*: see n. to I 797. 199 *Noenu* recurs IV 712: it is simply *ne oenum* (*ne unum*), the fuller form of *non*, *ne* or *neo* being the old negative particle, as seen in the 12 tables, and in

necopinus neuter necuter nimirum neglego negotium and the like: perhaps then *non* might be compared with the French *ne pas, ne point.* *proquam*: see n. to II 1137. 201 *cum pondere magno*=pondere magno, the abl. of quality: see n. to I 755. 207 *cluebit*=erit, as so often. 208 *quoque etiam*, and *quoque item, etiam quoque, item quoque* occur in Lucr. again and again: *quoque etiam* is not unknown to Cicero: de orat. I 164 *nunc vero, Crasse, mea quoque etiam causa rogo*; in Verr. III 206 *cetera, quae forsitan alii quoque etiam fecerint.* 208 *Haec quoque res,* 211 *Quod*: *quod* has here the same force as if the sentence had been introduced without any connecting particle: comp. Cic. de off. II 70 *videndumque illud est, quod, si opulentum fortunatumque defenderis, in uno illo..manet gratia; sin autem inopem..omnes non improbi humiles.. praesidium sibi paratum vident*: see n. to VI 250. 211 *sec. quies*: 939 *capis securam, stulte, quietem.* 212 *Indepta*: see n. to I 82. 213 *cernas* is of course potential. 214 *Ad speciem, ad pondus*: V 569 *nil ad speciem est contractior ignis*; Cic. in Verr. (2) I 58 *vidi..forum comitiumque adornatum ad speciem magnifico ornatu, ad sensum cogitationemque acerbo et lugubri.* 215 *cal. vap.*: see n. to II 844. ; 219 *Extima membrorum circumcaesura* recurs IV 647: *περικοπή* sometimes has the same sense. 221 *Quod genus est*: see n. to II 194. *Bacchi flos*: *Liberi* or *vini flos* is found in Livius Andr. Pacuvius and more than once in Plautus: curcul. 96 *Flos veteris vini naribus meis obiectust* shews that *flos* means the bouquet of the wine: comp. too II 848 *nardi florem.* 227 *rerum*: the *sucos et odorem* shew that he is speaking of the different things above mentioned, the wine the perfume and the *aliquod corpus.*

231—257: the *animus* is made up of spirit heat air and a fourth nameless substance the finest and most nimble that can be conceived and made of the smallest and finest atoms: from it comes the beginning of sensation which thence spreads through the several parts of the body: the least pain or hurt, if it reach to this substance, will destroy life at once. 232 foll. Epic. l. l. 63 says of the *ψυχή* that it is a thing *προσεμφερέστατον πνεύματι θερμοῦ τινὰ κρᾶσιν ἔχοντι καὶ πῇ μὲν τούτῳ προσεμφερὲς πῇ δὲ τούτῳ (ἐκείνῳ)*: Lucr. expresses his *πνεῦμα* by *aura*, his *θερμοῦ κρᾶσιν ἔχον* by *mixta vapore*: *vapor* and 234 *calor* are of course synonymes as elsewhere in Lucr.: in this slight sketch Epicurus speaking of the whole *ψυχή* does not mention the air, nor the fourth nameless substance; but Stob. ecl. I 41 1 and Plut. de plac. phil. IV 3 say that Epic. made the soul *κρᾶμα ἐκ τεττάρων, ἐκ ποιοῦ πυρώδους, ἐκ ποιοῦ ἀερώδους, ἐκ ποιοῦ πνευματικοῦ, ἐκ τετάρτου τινὸς ἀκατονομάστου ὃ ἦν αὐτῷ αἰσθητικόν.* 234 *Nec calor* cet.: Lucr. seems to have drawn this conclusion from what he saw of fire and its mode of operation. *calor quisquam*: see n. to I 1077 *Nec quisquam locus est.* *cui*: Wak. com-

pares Aen. VIII 431 *Fulgores nunc terrificos sonitumque metumque Miscebant operi*; but *cui* seems rather to depend on *sit*: qui non habeat immixtum aera. 240 *Sensiferos*: this seems another word peculiar to Lucr. and to this book. 242 *east omnino nominis expers* and 279 *nominis haec expers vis* express the ἀκατονόμαστον of Plutarch and Stobaeus: the latter continues l. l. τὸ δ' ἀκατονόμαστον τὴν ἐν ἡμῖν ἐμποιεῖν αἴσθησιν· ἐν οὐδενὶ γὰρ τῶν ὀνομαζομένων στοιχείων εἶναι αἴσθησιν, and Plut. adv. Col. 20 says τὸ γὰρ ᾧ κρίνει καὶ μνημονεύει καὶ φιλεῖ καὶ μισεῖ καὶ ὅλως τὸ φρόνιμον καὶ λογιστικὸν ἔκ τινος φησὶν ἀκατονομάστου ποιότητος ἐπιγίνεσθαι: this fourth nameless thing must have been restricted to the central *animus*; the *anima* must have shared with it the other three: perhaps Epicurus got the notion of this τετάρτη οὐσία or quartessence from the quintessence of Aristotle. 247 *venti* here and below takes the place of the *aura* of 232 and 290: its effects are described below; but how far this *ventus aura* or πνεῦμα differed in substance from his *aer* is not stated. 250 *postremis.. ossibus*: see n. to II 217 and 1080, and comp. Aen. V 857 *Vix primos inopina quies laxaverat artus*; Aen. XI 664 *Quem telo primum, quem postremum.. Deicis.* 251 *ardor*, a strong excitement or feeling, good or bad; the epithet *contrarius* makes it here the opposite of *voluptas*. Lamb. compares Catul. II 8 *gravis adquiescat ardor.* 252 *huc*, to the central position of this fourth nameless thing. 257 *Motibus* i. e. of physical pain or suffering. 252—257: it must surely have been a misapprehension of some statement of Epicurus similar to this that led to the strange assertion in Plut. de plac. phil. IV 23 that Epicurus placed καὶ τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές.

258—322: these four substances have their elements so mixed together as to make up a single whole; just as in the flesh of any animal there are different substances, which yet compose a single body: the fourth nameless substance, the first source of sensation, lurks in the inmost recesses of the body and is so to speak the soul's soul, being to the soul what the soul is to the body, and supreme over both. Thus too the three other substances must be so mixed up as to form one whole, lest their several powers acting independently should destroy sensation: every animal has in it the heat the spirit and the air, but one animal has more of one than of the other, and thus gets its distinctive character: the lion has more of heat, the stag of spirit or wind, the ox of air: so is it with men; their characters differ as they have more of one or of another of these: yet reason will so keep down the too great influence of any of them, that a wise man may live like a god. 259 *Compta*: see n. to I 950. 260 *patr. ser. eg.*: see above p. 100 foll. 261 *ut potero* cet. i. e. tam summatim quam potero tangam. 262 *principiorum* is, as always, the gen. plur. of *primordia*; therefore *princ. moti-*

bus = suis motibus. 265 *multae vis*: see n. to II 586. 266 and 276 *Quod genus*: see n. to II 194: in both our places the illustration it introduces refers both to what precedes and follows: comp. 327. 271 *ab se*: IV 468 *animus quas ab se protinus addit*, though the force of *ab se* is there slightly different. 271 272 are illustrated in the preceding paragraph. 273 274 275 and 279 280 281: notice the redundancy of words and their repetition, by which he wishes to point attention at once to the exceeding fineness and secrecy and the exceeding importance of this nameless substance. 274 *infra* = IV 112 *infra nostros sensus*: comp. too II 138 *a principiis ascendit motus et exit Paulatim nostros ad sensus*; and n. there. 275 and 281 *Proporro*: this word was thought peculiar to Lucr. till it was restored to Lucilius by a brilliant emendation of Lach. in his n. to II 136. 279 *tibi*: see n. to I 797. 282 *Consimili ratione*: in the same way that this fourth substance mixes with the others, yet keeps itself withdrawn and is known only by its effects; so the other three must keep themselves each one in due subordination or prominence according to the nature in which they are, lest by acting independently they should ruin one another and destroy sense. 284 i. e. aliud aliis magis subsit in hac re, magis emineat in illa re. 285 the most prominent of the three in any nature giving that nature its unity and distinguishing character. 286 *Ni*: see n. to II 734 *Nive*. *seorsum* and *diducta* mean if they were separate and therefore hostile. 288 *Est etenim* cet. for every mind and soul have in them all three; but 294 foll. in one animal one is more prominent, in another another; and 307 so it is with men: one man partakes more of one, another of another. 288 *in ira Cum fervescit*: 295 *facile effervescit in ira*. 289 *ex oculis* cet. imitated by Virg. Aen. XII 102 *oculis micat acribus ignis*. 292 *etiam quoque*: see n. to 208. 296 *vis violenta leonum*: 8 *fortis equi vis*; IV 681 *permissa canum vis*: Lucr. delights in this and like periphrases, *animi vis animaeque potestas*; *ferri, aeris vis, plumbi potestas, tripectora tergemini vis Geryonai, rapax vis solis equorum*, etc. 297 298 *Pectora qui frem. rumpunt* cet.: Heyne to Aen. XII 526 *nunc, nunc Fluctuat ira intus*; *rumpuntur nescia vinci Pectora*, says that the image there is taken from water boiling up, which strives to burst the vessel in which it is confined: thus in our passage the beast cannot hold the boiling billows of rage, but is ready to break: with 297 comp. also Catul. LXIV 62 *magnis curarum fluctuat undis*; Aen. IV 532 *magnoque irarum fluctuat aestu*, and XII 831 *Irarum tantos volvis sub pectore fluctus*. 303 *percit*: I 212 *cimus*, where see note. 305 *perfixa*: see II 360. 306 *Inter utrosque* cet. imitated perhaps by Manil. II 240 *Inter utrumque manet Capricornus corpore mixto*. 315 *sequacis* seems rightly explained by Creech and Forc. 'qui istam naturam sequuntur.' 316 seems modelled on Cic. Arat. 234 *Quarum*

ego nunc nequeo tortos evolvere cursus. 319 *firmare* for *affirmare* is rarely found in good writers, for *confirmare* frequently in the best and elsewhere in Lucr.: the latter may be its meaning here. 322 *Ut nil inpediat*: Epic. in Diog. Laer. x 135 *ταῦτ' οὖν καὶ τὰ τούτοις συγγενῆ μελέτα διὰ παντός...καὶ οὐδέποτ' οὔθ' ὕπαρ οὔτ' ὄναρ διαταραχθήσῃ, ζήσῃ δ' ὡς θεὸς ἐν ἀνθρώποις· οὐθὲν γὰρ ἔοικε θνητῷ ζώῳ ζῶν ἄνθρωπος ἐν ἀθανάτοις ἀγαθοῖς.*

323—349: the soul is held together by the body and in turn keeps the body in life: the one cannot be torn from the other without destruction to both, any more than its perfume can be separated from frankincense: by their mutual motions sense is kindled: nor is the body ever born nor does it grow without the soul nor continue when the soul has left it: even in the mother's womb they learn in common the motions of life. 327 *Quod genus*, as 266 and 276, introduces an example illustrating both what precedes and what follows. 330 *Haut facile est* means of course that it is quite impossible; as 361 *Difficilest*: see n. there. 332 *consorti vita*: they are coheirs or copartners of a life, which is a *sors*, a patrimony or capital, which cannot be divided, but must be used by them in common: comp. Ciris 14 *Si me iam summa sapientia pangeret arce, Quattuor antiquis quae haeredibus est data consors*; where the *arx* is the joint *sors* of the four. 333 *Nec sibi quaeque*: *suus* or *sui* with which *quisque* goes so naturally, allows of *quaeque* being said of either of two: so Cic. pro Rosc. com. 32 *suam quisque partem iuris possideat*; Livy II 7 1 *ut nocte ambo exercitus, Veiens Tarquiniensisque, suas quisque abirent domos*; yet the negative *Nec quaeque* for *nec utra* or *nec altera* seems harsh. 336 *accensus.. sensus*: comp. II 943 and 959. This doctrine of Lucr. that for the production of sense and life the body is as necessary to the soul as the soul is to the body; that though sensation must begin with the *animus* and proceed to the *anima* before it can extend to the body, and the sense of the soul is more active than that of the body, yet the body feels and lives as well as the soul, is emphatically declared by Epic. in Diog. Laert. x 63 *καὶ μὴν καὶ ὅτι ἔχει ἡ ψυχὴ τῆς αἰσθήσεως τὴν πλείστην αἰτίαν δεῖ κατέχειν. οὐ μὴν εἰλήφει ἂν ταύτην, εἰ μὴ ὑπὸ τοῦ λοιποῦ ἀθροίσματος ἐστεγάζετό πως· τὸ δὲ λοιπὸν ἄθροισμα παρασκευάσαν τὴν αἰτίαν ταύτην μετείληφε καὶ αὐτὸ τοιούτου συμπτώματος παρ' ἐκείνης, οὐ μέντοι πάντων ὧν ἐκείνη κέκτηται*: see this same argument repeated in different words 558—579; and elsewhere in this book. 337 *Praeterea* cet.: this argument is more fully developed 445—525. 345 *Mutua* cet.: with this and 558—579 com. Epic. l.l. 64; and with this and much that follows comp. also 65 *καὶ μὴν καὶ διαλυομένου τοῦ ὅλου ἀθροίσματος ἡ ψυχὴ διασπείρεται καὶ οὐκέτι ἔχει τὰς αὐτὰς δυνάμεις οὐδὲ κινεῖται, ὥστ' οὐδ' αἴσθησιν κέκτηται. οὐ γὰρ οἷόν τε νοεῖν αὐτὴν αἰσθανομένην μὴ ἐν τούτῳ τῷ συστήματι καὶ ταῖς κινήσεσι ταύταις*

χρωμένην, ὅταν τὰ στεγάζοντα καὶ περιέχοντα μὴ τοιαῦτ' ᾖ ἐν οἷς νῦν οὖσα ἔχει ταύτας τὰς κινήσεις.

350—357: to say that the body has no sense, and that the soul spread through it alone feels, is to contradict a self-evident truth: but it is said when the soul departs, the body has no sense: yes, because sense is no inherent property, but an accident only. 350 *refutat*: as this cannot be really disproved, but only denied, Lambinus' *renutat* is very specious: but *refutat* may well imply tries to disprove or thinks he disproves. 354 *corpus sentire* = corporis sensus: see n. to I 331. *adferet* i. e. rationem adferet: thus we have had more than once *reddere* = rationem reddere: comp. Cic. Tusc. disp. I 70 *credo equidem in capite, et cur credam adferre possum.* 355 *palam dedit* = *apertum dedit* or *fecit*: comp. II 568 *palam est*, and n. there. 357 *proprium* = καθ' αὑτὸ συμβεβηκός or *coniunctum*: see I 451: sense is a mere *eventum*, which comes to both body and soul by their reciprocal action one upon the other; and when this ceases, all sense ceases for both alike. Lach. I now see to be mistaken in marking off this and the next two paragraphs, as not connected with what precedes and follows: the above vss. are a clear continuation and completion of the preceding argument; are in fact a summary of Epic. l. l. 64 διὸ ἀπαλλαγείσης τῆς ψυχῆς οὐκ ἔχει τὴν αἴσθησιν [τὸ σῶμα]· οὐ γὰρ αὐτὸ ἐν ἑαυτῷ ταύτην ἐκέκτητο τὴν δύναμιν, ἀλλ' ἑτέρῳ ἅμα συγγεγενημένῳ αὐτῷ παρεσκεύαζεν, ὃ διὰ τῆς συντελεσθείσης περὶ αὐτὸ δυνάμεως κατὰ τὴν κίνησιν σύμπτωμα αἰσθητικὸν εὐθὺς ἀποτελοῦν ἑαυτῷ, ἀπεδίδου κατὰ τὴν ὁμούρησιν καὶ συμπάθειαν καὶ ἐκείνῳ, καθάπερ εἶπον: it gets for itself and imparts in turn sense to the soul. 357 *in aevo* = in vita; so *ex ineunte aevo* five or six times = ex ineunte vita.

359—369: the assertion that the eyes cannot see, but that the mind sees through them, as through a door, is contradicted by their sense: nay bright objects often hinder the eyes from seeing them; but this could not happen to doors; nay if eyes act as doors, we ought to see better by entirely taking away these doors. 359 foll.: Sextus adv. math. VII 350 says οἱ δὲ αὐτὴν [τὴν διάνοιαν] εἶναι τὰς αἰσθήσεις, καθάπερ διά τινων ὀπῶν τῶν αἰσθητηρίων προκύπτουσαν, ἧς στάσεως ἦρξε Στράτων τε ὁ φυσικὸς καὶ Αἰνησίδημος: Lassalle Herakl. I p. 316 well compares with this what Sextus l. l. 130 says of Heraclitus, ἐν δὲ ἐγρηγορόσι πάλιν διὰ τῶν αἰσθητικῶν πόρων ὥσπερ διά τινων θυρίδων προκύψας [ὁ ἐν ἡμῖν νοῦς] καὶ τῷ περιέχοντι συμβαλὼν λογικὴν ἐνδύεται δύναμιν, and suggests that a comparison of this passage on the one hand with that quoted just above and on the other with this of Lucr. makes it highly probable that the illustration here employed came from Heraclitus: in what relation to him Aenesidemus stood is well known; the other, the peripatetic Strato of Lampsacus who went by the name of ὁ φυσικός, seems also to have been much indebted to him. This connexion in the present case will appear yet

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more probable, if we compare Tertull. de anima 14 near end, *non longe hoc exemplum est a Stratone et Aenesidemo et Heraclito; nam et ipsi unitatem animae tuentur quae...per sensualia variis modis emicet*: the doctrine here assailed by Lucr. is lucidly stated by Cic. Tusc. disp. I 46 *nos enim ne nunc quidem oculis cernimus ea quae videmus; neque est enim ullus sensus in corpore, sed, ut non physici solum docent, verum etiam medici qui ista aperta et patefacta viderunt, viae quasi quaedam sunt ad oculos, ad auris, ad naris a sede animi perforatae*: he adds *animum et videre et audire, non eas partis quae quasi fenestrae sint animi*; and so Epicharmus νόος ὁρῇ καὶ νόος ἀκούει, τἆλλα κωφὰ καὶ τυφλά. 361 *Difficilest* I am now disposed to keep: V 526 *quid in hoc mundo sit eorum ponere certum Difficile est*: *difficile* there, and III 328 and 330 *haud facile est* really mean 'it is not possible' according to that common rhetorical device of bringing your meaning out more strongly by understating it; and this is the sense here: to be sure if you press the word *dicere*, it is possible enough to *say* this or anything else; but then *desiperest* is equally out of place; for the wisest man may *say* it, as well as the most foolish; and indeed 'it is impossible' only means 'it is absurd.' 364 *Lumina luminibus*, another instance of false antithesis: see n. to I 875. 367—369: he concludes his case here, as so often elsewhere, with a brief argument addressed to the common sense of men, which here, as I 915, takes the form of a sarcasm: see the instances given to I 984—987. 369 *postibus* appears to mean the door-posts together with their *fores*: so it was understood by Lactant. de opif. dei 8, where he assails this, as he terms it, *ineptissimum argumentum* of Lucr.: *quoniam evulsae cum postibus fores plus inferunt luminis*.

370—395: you must not believe what Democritus teaches, that the atoms of the soul alternate one by one with those of the body, and are therefore as many in number: they are in fact not only much smaller, but also much fewer; only enough to awaken sense through the body, which often therefore does not feel very small things that come in contact with it; they not exciting any part of the soul. 370 *possis*: see n. to I 327. 371 recurs V 622. *Dem. sancta sententia*: Lucilius has *Valeri sententia dia*, Horace *sententia dia Catonis*. *viri* thus coupled with a proper name and without an epithet is curious; its force seems much the same as that which it has in *Arma virumque* and Aen. IV 3 *Multa viri virtus*. 372 *privis*, 378 380 389 *priva*, here and elsewhere in Lucr. are exact synonymes of *singula*. 373 *variare* is of course neuter here, as often in Lucr. This is another leading point of difference between Epicurus and Democritus, and one we should not have known of but for this passage: Arist. de anima I 5 at beg. merely says of Democritus that his ψυχή is ἐν παντὶ τῷ αἰσθανομένῳ σώματι, which would be quite as true of Epicurus', who in many

recorded points agreed with him on this question as on others, such as making the soul consist of the smallest and roundest atoms. 374 *animae elementa*: VI 755 *Sed natura loci ope*: comp. too Virg. geor. II 144 *tenent oleae armentaque laeta*: the only two cases where Lucr. lengthens by the caesura a short vowel, II 27 and V 1049, occur likewise in the middle of the fourth foot. *minora*, as proved at length 179—230. 377 *dumtaxat*: see n. to II 123. 378 *Quantula* has here the sense of a diminutive of *quot*, and = quam paucula, quam parum multa: *quantulum* and *quantum* have often this force in the sing.: thus *quantum est* = quot sunt; but I know no other instance of the plur. thus used; elsewhere in Lucr. the word has its proper meaning, *quam parvulus*. 380 the distances between each atom of soul will be exactly proportioned to the fewness of the whole number compared with those of the body. *exordia animai* here = *exordia prima* or *primordia an.*: no ambiguity being possible here: so 379 and in a hundred other places *Corpora* = prima corpora.

381 *Nam* cet.: Lucr. does not venture to say how few they are compared with those of the body; but these instances prove he thought the disproportion to be very great: the foot of a gnat or a grain of dust touching the body must touch thousands and thousands of atoms: if then these can often fall on the body without being felt, that is without touching any atoms of the soul, these must be vastly fewer than those of the body. But does not the body feel as well as the soul? yes; he has elaborately proved already that the one feels as well as the other, and that neither of the two can possibly feel without the other; but he has also shewn that the *initus motus* must proceed from the *anima*, and not merely from the *anima*, but from that part of it which is the *animus*, and not merely from the *animus*, but from that fourth nameless substance in it: the *anima* and *animus* then form one connected whole in the body; if therefore any atoms of the *anima* are moved they will at once communicate with the *animus*, and sense will commence and be imparted to the whole *anima*, and from the *anima* to the body which will then feel. But many atoms of the body he argues may be touched without any part of the soul being moved, and therefore without there being any commencement of sensation: see what presently follows, 391—395. 381 *adhaesum*: this word occurs three times in Lucr. and seems to be found nowhere else: he dearly loves these substantives in *-us*. 383 *aranei*: this contraction is forced on him by the necessity of the metre. 387 *levitate...gravatim*: see n. to II 1054. 391 *ciendum semina*: another instance of this idiom so common with him: see n. to I 111. 393 *sentiscant*: IV 586 *sentiscere*: the word seems to occur nowhere else. 394 *tuditantia*: see n. to II 1146. 395 he seems here briefly to indicate the process spoken of to 381, that of

the particles of the *anima* meeting, moving the *animus*, which excites sense, reacts on the rest of the *anima* and then on the body, thus at last exciting its sensation.

396—416: the *animus* has more power over life than the *anima*; without the *animus* the *anima* cannot remain one instant in the body: but if the former is safe, much of the latter may be cut off without destroying life: the *animus* is like the pupil of the eye, the least hurt to which destroys the sight; the *anima* is like the rest of the eyeball, much of which, not all, may be cut away and sight continue. 396 *est...coercens*: II 1089 *generatimst rebus abundans*. *vitai claustra*: see n. to I 415. 397 *dominantior* recurs VI 238: see n. to IV 961 *divisior*, *distractior*. 398 *mente animoque*, 402 *mens animusque*, here as elsewhere mere pleonasms. 399 obs. *partem pars*. 401 comp. IV 924 *Aeterno corpus perfusum frigore leti*. 404 *membris* must be the parts yet left or the *truncus*. 405 *aetherias*: see n. to I 250 and II 1115: when Lach. was dealing so remorselessly with the *aetherias auras* of Lucr. and Virgil, he ought not to have left unscathed the striking expression of Aen. VI 436 *quam vellent aethere in alto*, i. e. merely in the upper air on earth. 409 *vivata potestas* recurs 558: *vivatus* is also mentioned by Festus. 410 foll. he presses the comparison: much of the *anima* may be taken away, not all: so much of the eyeball, not all. 412 *eorum* of both *orbis* and *acies*: comp. 326 *Nec sine pernicie divelli posse videntur* i. e. corpus et anima: unless it be better to understand *oculorum*. 413 *tantula pars media illa*: V 593 *Tantulus ille...sol*. 413 foll. here too the comparison is minutely carried out with 398 foll.

417—444: this soul and mind (we may now use the terms indifferently) have a birth and are mortal; for they are of the smallest and finest atoms, being more easily moved than anything else, even by images of the rarest things, smoke mist and the like: as these things then melt into air, so must the soul, when severed from the body, dissolve even more quickly: how indeed, when the body cannot keep it, could the air which is much rarer hold it together? 417 *Nunc age*, as he now passes to a new branch of the discussion. 420 *Digna* cet.: culex 10 *Ut tibi digna tuo poliantur carmina sensu*, a manifest imitation which shews that *Digna tua* is not to be tampered with. *disponere*: I 52 *mea dona tibi studio disposta fideli*. 424 *Quatenus*: see n. to II 927. *coniuncta res* in the language of Lucr. precisely = coniunctum. 428 *nam*: see notes 1: that this is cause, not effect, is proved by 179 foll. esp. 186 *At quod mobile tanto operest, constare rutundis Perquam seminibus debet* cet. and 203 *Nunc igitur quoniam est animi natura reperta Mobilis egregie, perquam constare necessest Corporibus parvis* cet. 431 *in somnis* is thus used thirteen times by Lucr. who

never once says *somnis sopiti* or the like, never indeed employs the plur. except in the phrase *in somnis*: this will shew how rash and unfounded Lachmann's alteration and note are. 433 *Nam* cet. as fully set forth in IV. 434 *Nunc igitur quoniam*: in consequence of the long parenthesis he begins the protasis afresh, instead of simply saying *Et quoniam* with reference to 425 foll.: with 425 *Principio quoniam*, 428 *nam*, 434 *Nunc igitur quoniam* comp. the precisely similar passage IV 54 *Principio quoniam*, 61 *nam*, 63 *Quae quoniam*, which Lach. should not have overlooked. 440 *vas quasi*: 555 *illius quasi quod vas esse videtur*, and 793, repeated V 137, *in eodem vase* of the body: so Cic. Tusc. disp. I 52 *corpus quidem quasi vas est aut aliquod animi receptaculum*.

445—458: again the mind is born with the body, grows with it, decays with it: in the child it is weak, in the man strong, in the aged again childish: it is natural then it should die also with the body. 445 446 are very similar to Herod. III 134 αὐξανομένῳ γὰρ τῷ σώματι συναύξονται καὶ αἱ φρένες, γηράσκοντι δὲ συγγηράσκουσι καὶ ἐς τὰ πρήγματα πάντα ἀπαμβλύνονται, whether Atossa learnt it from Democedes or Herodotus from Democritus. 449 *Inde ubi robustis adolevit viribus aetas*, 451 *Post ubi iam validis quassatum est viribus aevi*: Wak. well compares Virg. geor. II 362, 367 *Ac dum prima novis adolescit frondibus aetas, Inde ubi iam validis amplexae stirpibus ulmos*; for in what precedes and follows Virgil shews that his mind was saturated with the verses of Lucr.: comp. 363 *se laetus ad auras Palmes agit laxis per purum immissus habenis* with V 786 *Arboribusque datumst...per auras Crescendi magnum inmissis certamen habenis*: 360 *contemnere ventos Adsuescant*, 365 *Ipsa acie nondum* cet. with II 448 *Prima acie constant ictus contemnere sueta*: 351 *Qui saxo super atque ingentis pondere testae Urgerent* with III 892 *saxi, Urgerive superne obtritum pondere terrae*: 324 *genitalia semina*, 325—327 *Tum pater—fetus*, 328 *Avia tum resonant avibus virgulta canoris*, 331 *Laxant arva sinus, superat tener omnibus umor, Inque novos soles audent se gramina tuto Credere* and 47 *Sponte sua quae se tollunt in luminis oras*, 336—345 followed by the Lucretian *Quod superest*, with V 851 *genitalia semina* in a different sense, I 250 foll. *Postremo pereunt imbres, ubi eos pater aether* cet., 256 *Frondiferasque novis avibus canere undique silvas*, I 809 *tener umor*, V 806 *umor superabat in arvis*, 771 *Quod superest*, 780 *Nunc redeo ad mundi novitatem et mollia terrae Arva, novo fetu quid primum in luminis oras Tollere et incertis crerint committere ventis*, and then follows the description of the early world of which Virgil's is a summary: 310 *Praesertim si tempestas...glomeratque ferens incendia ventus* with II 32 and V 1395 *Praesertim cum tempestas*, IV 871 *glomerataque multa vaporis Corpora quae stomacho praebent incendia nostro*, the words like, the meaning quite different: 260 *Excoquere et magnos scrobibus concidere*

montis, 295 *Multa virum volvens durando saecula vincit*, 297 *media ipsa* with I 201 *Transire et magnos manibus divellere montis Multaque vivendo vitalia vincere saecla*, V 905 *media ipsa*: 291 *auras aetherias*, 287 *in vacuum* Lucretian expressions: 281 *ac late fluctuat omnis Aere renidenti tellus* with II 325 *totaque circum Aere renidescit tellus*: 250 *ad digitos lentescit habendo* with I 312 *Anulus in digito subter tenuatur habendo*: 246 *At sapor indicium faciet manifestus et ora Tristia temptantum sensu torquebit amaro* with II 401 *foedo pertorquent ora sapore*, IV 634 *triste et amarumst*: 217 *Quae tenuem exhalat nebulam fumosque volucris* with V 253 *Pulveris exhalat nebulam nubesque volantis*: 209 *Antiquasque domos avium* with I 18 *Frondiferasque domos avium*: 165 *argenti rivos aerisque metalla Ostendit venis atque auro plurima fluxit; Haec genus acre virum* with V 1255 *Manabat venis ferventibus...argenti rivis et auri, Aeris item et plumbi*, 862 *genus acre leonum*: 149 *atque alienis mensibus aestas* with I 181 *atque alienis partibus anni*: 151 *saeva leonum Semina* with III 741 *triste leonum Seminium*: 140 *tauri spirantes naribus ignem* with V 30 *equi spirantes naribus ignem*: 144 *Implevere; tenent oleae armentaque laeta* with the rhythm of V 202 *Possedere, tenent rupes vastaeque paludes*, and then 411 *segetem densis obducunt sentibus herbae*, 237 *validis terram proscinde iuvencis*, 263 *id venti curant gelidaeque pruinae*, 293 *non hiemes illam, non flabra neque imbres Convellunt*, 47 *Sponte sua quae se tollunt in luminis oras*, also I 197 *multo spectata labore Degenerare tamen, ni vis humana quotannis*, 45 *Depresso incipiat iam tum mihi taurus aratro* with passages of Lucr. immediately following the one last quoted, V 206 *id natura sua vi Sentibus obducat, ni vis humana resistat Vitai causa valido consueta bidenti Ingemere et terram pressis proscindere aratris*, 212 *Sponte sua nequeant liquidas existere in auras, Et tamen interdum magno quaesita labore*, 216 *Aut subiti peremunt imbris gelidaeque pruinae Flabraque ventorum violento turbine vexant.* Just after where we began, 376 *Frigora nec tantum cana concreta pruina* with III 20 *neque nix acri concreta pruina*: 402 *Atque in se sua per vestigia volvitur annus* with IV 472 *Qui capite ipse sua in statuit vestigia sese*: 428 *Vi propria nituntur opisque haud indiga nostrae* with II 650 *Ipsa suis pollens opibus, nil indiga nostri*: 461 foll. *Si non* cet. with II 24 *Si non* cet.: 475 *Me vero primum dulces ante omnia musae Quarum sacra fero ingenti percussus amore*, 478 *Defectus solis varios lunaeque labores, Unde tremor terris*, 482 *Hiberni, vel quae tardis mora noctibus obstet* with I 923 *Percussit thyrso laudis spes magna meum cor Et simul incussit suavem mi in pectus amorem Musarum*, V 751 *Solis item quoque defectus lunaeque latebras*, VI 287 *Inde tremor terras*, V 699 *noctes hiberno tempore longae Cessant*: 490—492 *Felix qui potuit rerum cognoscere causas* cet. have been compared at I 78 with various vss. of Lucr.: 500 *Quos rami fructus, quos ipsa vo-*

lentia rura Sponte tulere sua, carpsit compared by Macrob. with v 937 *Quod sol atque imbres dederant, quod terra crearat Sponte sua, satis id* cet.: 510 *gaudent perfusi sanguine fratrum* comp. with III 72 *Crudeles gaudent in tristi funere fratris*: 523 *dulces pendent circum oscula nati* with III 895 *nec dulces occurrent oscula nati Praeripere.* 449 *viribus,* 450 *vis,* 451 *viribus,* 452 *viribus*: see n. to I 875. 450 *auctior* is used by Livy more than once. 456 *ceu fumus*: 614 *vestemque relinquere* [se], *ut anguis*; where Lach. in answer to Madvig opusc. pr. p. 312, who objected to the nomin., quotes also 426 *minoribus esse Principiis factam quam liquidus umor aquai*; IV 698 *maioribus esse creatum Principiis quam vox*; as well as examples from Varro and others: comp. 583 *Emanarit uti fumus diffusa animae vis,* and Sextus adv. math. IX 72 καὶ καθ' αὑτὰς δὲ διαμένουσι καὶ οὐχ, ὡς ἔλεγεν ὁ Ἐπίκουρος, ἀπολυθεῖσαι τῶν σωμάτων καπνοῦ δίκην σκίδνανται. 458 *fessa fatisci* recurs v 308.

459—525: again, as the body is liable to disease, so is the mind to cares and fears; therefore it should partake with the other of death: again when the body is ill, the mind often wanders and is senseless before death; it ought then to die, since disease reaches it; for that which feels disease must die: again in drunkenness the mind shares in the disorder of the parts of the body; but if it can thus be disordered, it may be killed by a more powerful cause: again in a fit of epilepsy, the sinews stiffen, the man foams at the mouth and the like; his mind is at the same time disordered by the attack; then when the fit is over he rises up reeling and gradually comes to his senses: when the mind then is thus tempest-tost in bodily disease, how could it battle for ever with storms in the open air? again the mind may be healed like the body; it is therefore mortal; for that which is immortal allows not of any changing or shifting of parts: the healing therefore of the mind by medicine and its suffering from disease both alike prove it to be mortal. 459 foll.: comp. what Cic. Tusc. disp. I 79 says of Panaetius, *alteram autem adfert rationem, nihil esse quod doleat quin id aegrum esse quoque possit; quod autem in morbum cadat, id etiam interiturum; dolere autem animos, ergo etiam interire*: what precedes illustrates Lucretius' last argument. 460 *Suscipere* would come more naturally in the same clause with *videamus*: comp. 510: this then might be added to the examples given in n. to I 15. 462 *Quare* cet.: for death results from some disease or pain: 472 *Nam dolor ac morbus leti fabricator uterquest.* 464 *dementit* is found in no other writer of authority. 467 *voces* i. e. conclamantium: the custom would in this case be very appropriate in order to decide whether it were a lethargy or death; the friends were still *ad vitam revocantes*: *iam conclamatum est* could not yet be said. 469 comp. II 977 *Et lacrimis spargunt rorantibus ora genasque.* 479 *tar-*

descit seems a ἅπαξ λεγόμ. 481 *Et iam cetera de genere hoc*, or *Cetera de genere hoc* or *horum* are favourite phrases of Lucr. imitated by Hor. sat. I 1 13. 483 *corpore in ipso* = *intus in corpore*: 506 *corpore in ipso* is opposed to 508 *sine corpore*: see n. to IV 736. 492 *Nimirum* cet.: Lach. well shews that here begins the explanation of the symptoms mentioned above. 493 *agens animam*: Cic. Tusc. disp. I 19 *animum autem alii animam, ut fere nostri. declarat nomen; nam et agere animam et efflare dicimus*; Catul. LXIII 31 *anhelans vaga vadit animam agens.* 494 *fervescunt*, and therefore foam, with reference to *spumat*; the winds answering to the *animam.* 498 *Qua*: see n. to I 356. *Qua* cet.: i. e. qua consuerunt ferri et est illis munita via, a regularly made road. 500 *docui* in 492. 502 *reflexit* neut.: so IV 1130 *vertunt*; V 831 *vertere cogit*; 1422 *in fructum convertere*; IV 135 (142) *vertere* is ambiguous: V 931 and VI 345 *volventia*; VI 823 *qua derigit aestus*; 1122 *immutare coactat*: comp. also n. to II 126 *turbare* = turbari: VI 595 *movere*; 1190 *trahere*; 519 *tenere*; and I 397 *Ipse in se trahere.* *redit* is the present. 504 *vaccillans*: so spelt in Nonius p. 34 who cites Cic. Phil. III 31, and there the oldest ms. of Baiter and Halm has *vaccillante*: I find also from a quotation in the Libri catal. of mss. 299 that a ms. of Cyprian attributed to the 9th century has *vaccillat*: this would confirm its derivation from the waddling gait of the *vacca.* Lucr. six times gives it the quantity it has in other poets: here A and B rightly have the *cc.* With the above comp. what Celsus III 23 says of an epileptic fit *inter notissimos morbos est etiam is qui comitialis vel maior nominatur. homo subito concidit, ex ore spumae moventur; deinde interposito tempore ad se redit et per se ipse consurgit.* 506 *Haec*, the *animus* and *anima.* 513 *traiecere*: comp. II 951 *eiecit*, and n. there. 514 *prosum* and 534 *Introsum*: see n. to 45. *hilum* in an affirmative sentence occurs also IV 515 *libella aliqua si ex parti claudicat hilum*: I find no other example; but VI 576 *perhilum* is also affirmative: *prosum* .. *hilum* pleonastical to express the most minute quantity; because the smallest jot will prove the point. 519 520 so often recurring. 524 *eff. praecl.*: I 975 *effugium praecludit*, where see note. 525 *Ancipiti*, alike whether the *animus* sickens or is healed. *refutatu*, another ἅπαξ λεγ. in *us*, = *refutatio*: see n. to I 653.

526—547: again a man often loses sense and life limb by limb; the soul then thus severed and lost must be mortal: or if you say it draws itself together from all the limbs, then the spot in which it is thus gathered ought to have a livelier sense; but this is not so; it therefore disperses, that is dies: nay grant that it can contract itself, you must admit it to be mortal, for equally in this case it gradually deadens, and sense and life quit the man. 526 *ire*: so 531 *itque*; VI 1243 *contagibus ibant Atque labore*: somewhat similar are II 962 *quo decursum*

prope iam siet ire et abire; and III 593 *labefacta videtur Ire anima.* 527 is the most effective instance of sound answering to sense, produced by the simplest means, that I know of in the whole range of Latin poetry. 529 *post inde*: he also has *post deinde*, VI 763 *post hinc*, V 1007 *tum deinde*: *post inde* is found in Enn. ann. 11. 537 *in sensu*: 581 *in taetro odore*: the simple abl. or *cum* would in each case be more usual; though *in* seems to have much the same force as in *in vita*, *in morte* and the like. 540 *si iam libeat*: see n. to I 968. 545 *suis e partibus* I take to be the parts of the soul itself: comp. II 159 *ipsa suis e partibus una.* 545 *obbrutescat*, a rare word: Afranius 420 has *obbrutui*: A B both spell it with one *b*; and so do the mss. of Nonius, and of Festus Pauli twice over: *opportunus* occurs in Lucr. five times: in each case either both A B or one or the other write *oportunus*: Servius to Aen. I 616 has '*applicat*: secundum praesentem usum per *d* prima syllaba scribitur: secundum antiquam orthographiam quae praepositionum ultimam litteram in vicinam mutabat, per *p*: secundum vero euphoniam per *a* tantum': i.e. only one *p* was sounded: this was probably the case with *obbrut.* and *opport.* and it seems likely that they might be written also with one *b* or *p*. In this, as in so many other points, it is clear that the artificial modern Italian pronunciation is directly contrary to that of the old Latins with whom *causa* and *caussa*, *excisus* and *excissus* were identical in sound: see n. to 1044 *Restincxit.*

548—557: the mind is as much part of the man, as the ear eye or any other sense: none of these can exist alone, but decay at once: so it is with the mind, which is as closely connected with the body as these are. 551 *atque..ve*: see notes 1. 553 *Sed tamen* cet = sed in tempore quamvis parvo tamen licuntur: comp. Cic. de rep. VI 21 (somn. Scip. VI 3) *quem oceanum appellatis in terris, qui tamen tanto nomine quam sit parvus vides*; Ter. eun. 170 *Tamen contemptus abs te haec habui in memoria*: the force of *tamen* is very much the same in IV 953, 988, 992. 555 *homine...quod vas*: see n. to 94; and comp. 793 or V 137 *in eodem homine atque in eodem vase manere.*

558—579: again body and soul depend for life one on the other: without the body the soul cannot give birth to vital motion, nor can the body without the soul continue and feel: mind and soul produce their sense-giving motions, because their atoms are kept in by the bodily frame: this they cannot do in the air; or else the air will be a body and an animal, if the soul can move in it as it moved in the body; therefore when the body dies, mind and soul die. 558 foll. *Denique* cet. clearly begins a new argument: in the last section he shewed that the mind, the *mens* or *animus*, not the *anima*, has a fixed seat, viz. in the breast, and cannot live away from the body, any more than the ear or eye; but there he says nothing of the body not existing without the

mind. In our present section he shews the reciprocal dependence of soul and mind and of body one on the other: see what is said of Lachmann's punctuation in note 1. The soul runs through the whole body which depends on it, as much as it depends on the body. There is a striking resemblance between the language here and that of 323—349; only the conclusion proved is different. 558 *vivata potestas*: see 409 and n. there. *coniuncta* is neut. plur. and must refer to *potestas* twice repeated; yet he usually employs the neut. only when the substantives are of different genders: this case is very exceptional, and harsher than even II 400 *taetra absinthi natura ferique Centauri foedo pertorquent ora sapore*, where Lach. would prefer *pertorqueat*. *Inter se coniuncta*: 332 *consorti praedita vita*. 560 *edere*: II 443 *varios quae possint edere sensus*; 816 *variantes edere tactus*. 562 *sensibus uti*, which the soul enables it to do by giving birth to sense-giving motions. 564 *seorsum corpore*, without *a*, appears an unusual construction. 569 *moventur motus*: a grecism. Epic. in Diog. Laer. X 66 concludes in the same way, *οὐ γὰρ οἷόν τε νοεῖν αὐτὴν αἰσθανομένην, μὴ ἐν τούτῳ τῷ συστήματι καὶ ταῖς κινήσεσι ταύταις χρωμένην, ὅταν τὰ στεγάζοντα καὶ περιέχοντα μὴ τοιαῦτ' ᾖ ἐν οἷς νῦν οὖσα ἔχει ταύτας τὰς κινήσεις.* 573 *Corpus enim* cet.: he has shewn again and again that reciprocity on the part of the body is necessary to enable the soul to begin to act and produce sense. 575 *in ipso corp.* i.e. intus in corpore: comp. 590, 506, 482 and n. there. 579 *duobus* means of course the *animus* and *anima*, taken as one, and the *corpus*: comp. the conclusion of a very similar argument 348 *Ut videas quoniam coniunctast causa salutis, Coniunctam quoque naturam consistere eorum*, i.e. corporis atque animai.

580—614: when the soul leaves it, the body rots away: a proof that the soul has come out of its inmost depths, to cause such utter ruin: the soul then must have been torn in pieces itself, ere it got out of the body: often again in life the soul seems to fail and be on the point of going: it is so shattered then together with the body, that a more violent shock would destroy it: how then could it exist even a moment, not to say an eternity, in the open air? a dying man feels not the soul escaping entire from him, but failing in this spot or that: if the mind were immortal, it would not mourn its dissolution, but its having to quit the cover of the body. 581 *in tae. od.*: Wak. quotes Aen. III 228 *tum vox taetrum dira inter odorem*. *taeter* is several times applied to *odor* by Lucr., still oftener to the sense of taste, sometimes to the sight. *in*: see n. to 537. 583 *uti fumus*: see Epicurus cited to 456 *ceu fumus*. 594 *velle*: IV 518 *Iam ruere ut quaedam videantur velle*. 595 *supremo tempore* occurred I 546: VI 1192 *ad supremum denique tempus*. 597 *animo male factum est, male fit, male est* are all found in Plautus; the last in Terence. 598 *animam liquisse*: *animus*

seems more usual in this phrase; as Caes. de bel. Gall. VI 38 4 *relinquit animus Sextium*; Suet. I 45 *repente animo linqui.. solebat*: Ovid heroid. II 130 *Linquor et ancillis excipienda cado.* 599 *repraehendere*: this spelling recurs 859; in three other instances A B have *repreh.*: for meaning see n. to VI 569 *reprehendere.* 601 *haec* appears to be the fem. plur.: Lucr. never uses *hae*: see VI 456 *haec comprendunt*, and n. there: but *haec* may be neut.: comp. 559 *Coniuncta.* 603 *prodita*: II 933 *aliquo tamquam partu quod proditus extet.* 604 *in aperto*: VI 817 *in apertum.* 605 *omnem.. per aevom*: II 561 *aevom.. per omnem*: see n. there. 610 *Verum* cet. i.e. omnis, understood from 607. *Nec quisquam*: see n. to II 1038. 611 *parti*: see n. to I 1111. 613 *Non tam*, followed not by *quam*, but 614 by *Sed magis*: comp. Cic. de fin. I 1 *quidam autem non tam id reprehendunt,.. sed tantum studium tamque multam operam ponendam in eo non arbitrantur*; and see Madvig's note, and also his emend. Liv. p. 573. 614 *ut anguis*: see n. to 456.

615—623: why too is the mind never born in the head or foot, but in one fixed spot, if not because it, like all other parts, has its place allotted to it, so that every member may have its due share in the body? cause ever follows effect, nor can fire arise in water, frost in fire. 615 *animi mens*: IV 758 *Mens animi vigilat*; V 149 *animi vix mente videtur*; VI 1183 *Perturbata animi mens*; Catul. LXV 4 *Mens animi*; Plaut. epid. IV 1 4 *Pavor territat mentem animi.* 616 *unis*: II 159 *ipsa, suis e partibus una*; 919 *una eademque*; V 897 *nec moribus unis.* 619 *ubi quicquid* = ubi quicque: see n. to II 957. 620 the subject to *esse* must be *membra* understood from 621 *Membrorum*: see n. to I 15: for 619 *quicquid* means each single part: with [*membra*] *esse artubus* cet. comp. VI 797 *Multaque praeterea languentia membra per artus Solvunt.* *mult. partitis artubus esse*: comp. II 909 *Aut simili totis animalibus esse*; and VI 268. 623 *Fluminibus*: *in* understood from *in igni*: IV 98 *speculis in aqua splendoreque in omni*; 147 *ubi aspera saxa Aut in materiem ligni pervenit*; V 128 *in aethere non arbor, non aequore salso*: Aen. V 512 *notos atque in nubila fugit.*

624—633: again if the soul is immortal and can exist alone, it must have the five senses, as imagined by writers and painters; but none of the senses can exist alone away from the body. 626 *sens. auctam*, 630 *sensibus auctas*: I 631 *quae nullis sunt partibus aucta*; Catul. LXIV 165 *quae nullis sensibus auctae.* 631 *sorsum* i.e. a corpore: comp. II 910 foll.: Lucr. writes indifferently *sorsum* and *seorsum*, *seorsus* and *sorsus*, when they are equally dissyllables: *seorsum* is sometimes too a trisyllable: IV 491 foll. within three or four vss. we have *seorsum*, *seorsus* and *sorsum*; and *seorsum* both trisyl. and dissyl.: V 447 448 *sorsum*, *Seorsus*: *deorsum* and *dorsum*, both found in inscriptions,

may be compared: see also n. to II 202. 633 *per se* i. e. sine corpore: to *sentire* and *esse*, *animae* is understood from 632.

634—669: since life and sense pervade the whole body, if it be cut in two by a sudden stroke, the soul must also be divided; but what is divided cannot be immortal: a soldier's arm or foot or head cut off in the heat of battle will shew for a time remains of sense and motion: a serpent chopped in pieces will writhe and with the severed mouth seek to reach the other pieces of the body: now you cannot say that in each part there is an entire soul; therefore the soul has been divided, and therefore is as mortal as the body. 639 *dissicietur*: see n. to II 951. 642 *falciferos currus* recurs V 1301: in prose *falcatus*. 643 *permixta caede calentes* recurs V 1313. 647 *in...studio quod dedita*: IV 815 *quibus est in rebus deditus*; Catul. LXI 101 *in mala Deditus vir adultera*. 648 *petessit*: V 810 *aurasque petessens*; Cic. Tusc. disp. II 62 *qui hanc petessunt nullum fugiunt dolorem*: Festus p. 206 says it is *saepius petere*; verbs of this form being generally accounted desiderative. 650 *abstraxe*: see n. to I 233. 653 *moribundus*: Aen. X 341 *Dextera...moribunda*. 658 *utrumque* i. e. et caudam et corpus: as these have been last mentioned and are the only parts that could well be chopped up, this appears quite natural: the tongue is specified because it afterwards tries to lick these pieces. 660 *ancisa* seems not to occur elsewhere. 662 *Ipsam se*, the mangled body and tail. 663 *ardenti*, burning with the torture. 665 *at ea* cet. which is absurd; therefore etc.

670—678: if the soul is immortal, why cannot we recollect what happened before our birth? if the mind is so changed as to forget everything, that is very like death; so that even thus you must admit that the soul which then was, has perished, and that the one which now is, is newly made. 672 *super = insuper*: see n. to I 649. *anteactam* refers to *nascentibus*: the time before our birth. 675 *retinentia* appears to be a ἅπαξ λεγ. 676 *longiter* recurs 789 and V 133. 677 so that even granting this transmigration of souls, the soul that was before birth has really perished, and on entering a new body has really become a new and different soul: in the above passage he is evidently assailing the pythagorean metempsychosis, which Enn. ann. 10 thus states, *Ova parire solet genu' pennis condecoratum, Non animam; et post inde venit divinitu' pullis Ipsa anima.*

679—712: if the soul enters the body after it is fully formed, it should not seem to be so mixed up with it, but should have a hole to live apart in; whereas in fact it so penetrates the whole frame that the very teeth have feeling; it therefore has birth and dies; else it could not be so united with the body, nor being so united, leave it entire: but if it can so enter and then spread itself over the whole body,

then must it perish thus diffused; even as food transmitted into the body perishes and then furnishes out of itself another nature: thus the soul that entered will die, and another be formed out of it : thus still the soul will be mortal. 681 *vitae limen*: he has *leti limen* several times: see n. to II 960. 682 *conveniebat* i. e. *vivere* from 684. 688 *sensu partic.*: Plaut. miles 262 has the same constr.: *non potuit quin sermone suo aliquem familiarium Participaverit de amica eri.* 689 *stringor* seems a ἅπαξ λεγ. 700 *Tanto quique magis* is repeated V 343: so VI 460 *Quam sint quoque magis*: *quique* too is of course the abl.; and there can be no doubt of the reading, which is natural enough, though no similar instance can be produced from other writers. *cum corpore fusa* = soluta et mixta cum corpore. 710 *tum* at the time when this theory supposes it to enter the body.

713—740: are atoms of the soul left behind in the dead body or not? if they are left, it cannot be immortal, since it has left parts of itself behind; if it goes out entire, whence come worms and other living things into the carcass? but if souls come from without into these myriads of creatures, do they each create a body for itself, or enter bodies already formed? but why make a body, when they are better without? disease cold hunger come from the body: but were it ever so useful, they could not make it: if again they entered it already made, they could not unite with it so closely as to have sensation in common. 713 *linquontur*, 714 *lincuntur*: I 743 *relinquont*, V 1239 *relinquunt*; *lincunt* three times; *secuntur* seven times; IV 581 *locuntur*; 590 *loquontur*; 1018 *loquuntur*: all these forms probably, except the last, were in the mss. of Lucr. within a generation of his death: a proof of the excellence of our mss. in their spelling; as none even of Virgil's retains the old forms in so large a proportion as this. 715 *Haut erit ut possit* = haut poterit: 725 *est ut Quaerendum videatur*: see n. to I 442: on rhythm of v. see n. to II 1059. 717 *membris* are here of course the parts or members of the *anima*. 721 *Exos* is also found in his imitators Arnobius and Serenus Samonicus. *perfluctuat* seems another ἅπαξ λεγ. 731 *Dicere* seems to be used here as a subs.: comp. IV 765 *meminisse iacet*; and n. to I 331: Livy XXVIII 27 3 *ad vos quemadmodum loquar nec consilium nec oratio suppeditat.* 734 *contage*: probably he wrote *contagei* or *contagi*, as IV 336 he has *contagē*: comp. V 930 *labi*, and see n. to I 978: but I 806 we find also *ut tabē nimborum.* 736 *Cum subeant* denotes repetition: see n. to II 41 *cum videas.* 738 *quidum*: *quidum?* = *qui?* or *quare?* is found several times in Plautus and Terence: the enclitic *dum* is the same as in *agedum adesdum manedum* and other imperatives, also *primumdum.*

741—775: again why do animals inherit the qualities of their parents, unless the mind like the body comes from a fixed seed: if the

soul is immortal and passes into different bodies, why do not dogs and stags, hawks and doves, men and beasts exchange dispositions? they say the immortal soul changes with the change of body: false; for what changes is broken up, and therefore dies: if it be urged, a human soul always passes into a human body, a horse's into a horse, why then is not the child as wise as the man, the foal as the horse? the mind grows young in the young body you say: then is it mortal, since it thus loses its former properties: or how can the soul come to maturity with the body, unless its partner from the beginning? or why does it seek to quit the aged body? it need not fear its ruin; for an immortal runs no risk. **741** *triste leo. Sem.*: Virg. geor. II 151 *saeva leonum Semina. leonum Seminium*, 746 *suo...semine seminioque*, IV 1005 *quo quaeque magis sunt aspera seminiorum*: in all *seminium* has the same meaning, the race breed stock or seed collectively to which a creature belongs; therefore *leonum seminium* is not the young of lions, but the breed or race to which lions belong: comp. IV 998 *catulorum blanda propago*; 1232 *virum suboles* and n. there; and Virg. geor. III 101 *prolemque parentum* and the like. **746** *semine seminioque*, thus joined for the sake of the much loved assonance; as 753 *fera saecla ferarum*: see n. to I 826. **750** *Hyrcano*: Cic. Tusc. disp. I 108 *nobile autem genus canum illud scimus esse* [in Hyrcania]. **754** *quod aiunt*: see n. to I 1053: Lachmann's stopping seems to me wrong: the infinitive clause may to be sure be said to be repeated with *quod aiunt*, as l. l. with *quod dicunt*. **756** comp. 701 *Quod permanat enim dissolvitur, interit ergo.* **756—759** is but another way of expressing his favourite formula, *Nam quodcumque suis mutatum finibus exit* cet. **759** *Denique* has here the force which it has in some of the instances given by Hand Tursell. II p. 266 II 1, as Ter. Phorm. 325 *Vereor ne istaec fortitudo in nervom erumpat denique.* **762** *prudens*: Cic. de sen. 20 *temeritas est videlicet florentis aetatis, prudentia senescentis*: *prudens* is the φρόνιμος of Aristotle: see eth. Nicom. VI 9. **764** *Nec tam doctus* cet. is added because 760 *animas hominum in corpora semper Ire humana* implies *animas equorum ire in corpora equina. fortis equi vis*: see 8. **765** *tenerascere*: the mss. of Pliny and Celsus appear to give the form *teneresco.* **766** *Confugient* with the infin. seems a most unusual construction: *confugient* [*ad eam sententiam*] *tenerascere* cet. *si iam fit*: see n. to I 968. **769** *Quove modo poterit* = quaeram praeterea quo modo possit. **770** almost the same as v 847. **772** *membris... senectis*: v 886 and 896 *aetate senecta*: *senecto corpore* is found in Sallust, and *senecta aetate* in him and Plautus: Mommsen inscr. regni Neapol. 3833 *Sed · cum · te · decuit · florere · aetate · iuenta · Interieisti · et · liquisti in maeroribus · matrem ·*: *senecta* and *iuventa* therefore must be originally adjectives: Lach. p. 44 quotes from Varro *senescendorum*

hominum, adolescendi humani corporis; and from Verrius Flaccus *rebus florescendis*: taking into account these examples, and *cretus concretus suetus* and its compounds it would seem that frequentatives in *-sco* were once transitive: see n. to II 363. 774 *aet. sp. vet.*: see n. to II 1174.

776—783: again how absurd that immortal souls should be present at conception and fight who shall get the mortal body, unless indeed they bargain, first come first served! 776 *conŭbia* or *conūbja*? it is not easy to decide: there is no other certain example of the word in Lucr. as V 1013 *Conubium* is introduced by conjecture: many and recently Luc. Mueller de re metr. p. 258 argue for the two quantities of the word: the latter says 'notabile quidem debuit videri tot exempla durissimae synizesis cur noluerint vitare poetae ponendo *coniugium* vel *coniugialem*. sed enim augebitur admiratio reputantibus Lucani et Senecae, qui numquam *i* vel *u* mutarunt in consonam, versus tales *Mox ubi conubii pretium mercesque solutast. Conubia vitat: genus Amazonium scias*. porro Statius synizesin cum alibi non plus septiens admiserit, in uno vocabulo *conubii*, si productam habet semper secundam, deciens octiens eam adhibuisse erit credendus': he further shews that the old grammarians Consentius and Servius hold it to be short in such cases. Prof. Conington to Aen. I 73 observes 'the analogy of *pronubus innubus* might be pleaded as proving a variation of quantity; but no clear instance of *conŭbium* occurs except in Sidon. Apoll.': Prudentius also has it short; and Claudian a far higher metrical authority than any of the Christians writes epist. II 18 *Vectigal meritae conubiale lyrae*: it is quite true that in the time of all these writers the native feeling for quantity was utterly lost and did not then exist in the Roman world; it was learnt only from tradition by Claudian and Servius as much as by Prudentius or us; but in reply to Conington's pertinent remark it might be said that the word is not used at all by Tibullus and Propertius nor in his lyrics and elegiacs by Catullus; that Ovid has only the form *conubia* in his elegiacs; that the word in the singular or dat. and abl. plur. occurring so often as it does in some writers, in Virgil 8, in Statius 18 times, is always found with the *u* in thesis, never once with it in arsis, and that though Lucan who resolves the *ii* of the gen. twice uses *conubii*, Virgil Aen. IV 167 chooses to say *conscius aether Conubiis*, not *Conubii*: it is quite possible that Virgil, and after him Ovid Statius and the rest, may in these doubtful cases have wished not to decide a moot point, and to leave their readers to fix it for themselves: see what is said at 1042 on perfects like *Exiit*: the sensitiveness of Virgil on doubtful points of quantity seems to have been very great; and often he avoids such altogether. *conubia* is used also by Ovid amores II 7 21 for *concubitus*. 778 *immor. mor. Inn. num.*: see n. to II 1054. 779

praeproperanter another ἅπαξ λεγ. 782 *volans adv.*: Wak. compares Aen. VI 191 *caelo venere volantes.*

784—829: again everything has its proper place assigned to it; and thus the mind cannot be out of the body away from sinews and blood: if it could be in the head or heels or any other part of the body (and this would be much more natural than that it should be out of the body altogether) there it would still be within the man: now as mind and soul not only are in our body, but have a fixed place in that body, it is still more inconceivable that they could exist wholly out of it; therefore the soul dies with the body: nay thus to join a mortal thing with an immortal is too absurd: but if you say the soul is immortal, because it is sheltered from all that would destroy it, that is not true: not only does it suffer with the body, but it has other ailments of its own, remorse madness lethargy and the like. 784—797 recur V 128—141 with very slight differences. 784 *in aethere non* cet.; but in aethere nubes, in aequore pisces, in arvis arbor. 787 *ubi quicquit* = ubi quicque, as is shewn above. 790 *posset enim multo prius* i. e. in capite cet. esse, quam sine corpore oriri sola et a nervis longiter esse. 793 *Tandem* is used here in not a common sense: comp. Plaut. miles 1062 *P. Minus ab nemine accipiet. M. heu ecastor nimis vilist tandem*; or Ter. eun. 1055 *ut haeream in parte aliqua tandem apud Thaidem*; Phorm. 701 *Spatium quidem tandem adparandis nuptiis, Vocandi sacrificandi dabitur paululum.* *in eodem homine* cet.: 554 *non quit sine corpore et ipso Esse homine, illius quasi quod vas esse videtur.* 794 *nostro quoque* cet.: not only is it in our body, but in that body it has its fixed place. 796 *infitiandum Posse*: *est* om. because *esse* is contained in *Posse*, according to Lachmann's rule explained to I 111. *infitiandum* in good mss. is always spelt with *t*: *c* is a gross error. 801 *mutua fungi* recurs IV 947: for *mutua* see n. to II 76, *fungi* n. to I 441. Observe the poetical tautology with which in this passage after his usual fashion he enforces an important doctrine: *certum ac dispositumst, crescat et insit, sine corpore oriri Sola, in eodem homine atque in eodem vase, certum Dispositumque, esse et crescere, durare genique, diversius.. magis disiunctum discrepitansque, inmortali atque perenni.* 820 *let. ab rebus munita*, like *tutus ab* and the like: Sallust Cat. 32 1 *ab incendio intellegebat urbem vigiliis munitam*; Hor. od. III 16 1 *Inclusam Danaen.. munierant satis Nocturnis ab adulteris*; Colum. XI 3 2 *hortum ab incursu hominum pecudumque munimus*: the sense admits of no question; but it may perhaps be a question whether the *vitalibus ab rebus* of mss. was not used by Lucr. in the sense of *letalibus* with contemptuous allusion to the use of *vitalia* as a euphemism for *mortualia*: Sen. epist. 99 22 *quam multis cum maxime funus locatur! quam multis vitalia emuntur!* and Petron. sat. 77 at end *interim, Stiche, profer vitalia in quibus volo*

me efferri, and 42 *bene elatus est, vitali lecto, stragulis bonis.* 826 *male habet*: Ter. Andr. 940 *mi unus scrupulus etiam restat qui me male habet*; hecyr. 606 *haec res non minus me male habet quam te.* 827 *remordent*: IV 1135 *conscius ipse animus se forte remordet*; Aen. I 261 *quando haec te cura remordet*: but *peccata remordent praet. male adm.* appears very tautological; unless *Praet. male adm.* depends on *peccata* i.e. quae male admissis peccavit.

830—869: thus the soul being proved to be mortal, death is nothing to us; for as we felt no discomfort, when Rome and Carthage were warring for the empire of the world, we shall feel none after the dissolution of body and soul, though heaven and earth go to ruin: if our soul even do exist after death, that is nothing to us, whose identity consists in the union of soul and body: or if infinite time to come collects again and gives life to the very same atoms of which we consist, that is nothing to us, when this identity has once been broken; even as we know and remember nothing of our former selves, if as is probable infinite time past arranged the atoms just as they now are in us: death will prevent us from existing in that future time and feeling the ills that may befall that repetition of ourselves: death then will at once make us for evermore as if we never had been. 830 foll. Epicurus to Menoeceus in Diog. Laer. X 125 says *τὸ φρικωδέστατον οὖν τῶν κακῶν ὁ θάνατος οὐθὲν πρὸς ἡμᾶς, ἐπειδήπερ ὅταν μὲν ἡμεῖς ὦμεν, ὁ θάνατος οὐ πάρεστιν, ὅταν δ' ὁ θάνατος παρῇ, τόθ' ἡμεῖς οὐκ ἐσμέν.* 831 *habetur* here = intellegitur, not simply *existimatur*: comp. I 758 *quid a vero iam distet habebis*, and n. there. 833 comp. culex 33 *Graecia cum timuit venientes undique Persas.* 835 *Horrida* cet.: Lucr. seems to have been thinking of Ennius ann. 311 *Africa terribili tremit horrida terra tumultu*; and Spenser faerie qu. I 11 7 to have been thinking of Lucr. *That with their horror heven and earth did ring.* 836 *In dubioque* cet. i.e. omnes humani in dubio fuere utr. ad reg. sibi cadendum cet.: Lucr. is very fond of such inversions; see n. to I 15: *humanis*, as 80 *Percipit humanos odium*, where see note. *ad regna cad.*: Livy I 40 3 *praeceps inde porro ad servitia caderet*: with these vss. comp. Livy XXIX 17 6 *in discrimine est nunc humanum omne genus, utrum vos an Carthaginienses principes terrarum videat*: was Livy thinking of Lucr. or do both of them allude to Ennius perhaps or Naevius? 839 *uniter apti* recurs 846; and the phrase is found thrice in V, *uniter* being apparently used by Lucretius alone: the words are opposed to *discidium*, and express that organic union of body and soul which gives a man his individuality and personal identity. 842 *Non si terra* cet. a proverbial expression: see n. to I 2 3 and 6—9; and comp. Juvenal II 25 *Quis caelum terris non misceat et mare caelo*; and what Cicero de fin. III 64 calls *illa vox inhumana et scelerata*, adopted by Tiberius and Nero, Ἐμοῦ

θανόντος γαῖα μιχθήτω πυρί· Οὐδὲν μέλει μοι, τἀμὰ γὰρ καλῶς ἔχει. Sextus pyrrh. hyp. III 229 is an excellent comment on the above vss. *καὶ ὁ Ἐπίκουρος δέ φησιν 'ὁ θάνατος οὐδὲν πρὸς ἡμᾶς· τὸ γὰρ διαλυθὲν ἀναισθητεῖ, τὸ δὲ ἀναισθητοῦν οὐδὲν πρὸς ἡμᾶς'· φασὶ δὲ καὶ ὡς εἴπερ συνεστήκαμεν ἐκ ψυχῆς καὶ σώματος, ὁ δὲ θάνατος διάλυσίς ἐστι ψυχῆς καὶ σώματος, ὅτε μὲν ἡμεῖς ἐσμέν, οὐκ ἔστιν ὁ θάνατος, οὐ γὰρ διαλυόμεθα, ὅτε δὲ ὁ θάνατος ἔστιν, οὐκ ἐσμὲν ἡμεῖς· τῷ γὰρ μηκέτι τὴν σύστασιν εἶναι τῆς ψυχῆς καὶ τοῦ σώματος οὐδὲ ἡμεῖς ἐσμέν.* Cic. Tusc. disp. I 90 *nec pluris nunc facere M. Camillum hoc civile bellum quam ego illo vivo fecerim Romam captam.*

843 *si iam*: see n. to I 968: the assumption is of course false. *si iam nostro sentit* cet.: similarly involved in construction are II 1133 *quanto est res amplior, augmine adempto, Et quo latior est, in cunctas* cet.; VI 158 *Ventus enim cum confercit franguntur in artum Concreti montes* cet. and 176 *Fecit ut ante cavam docui spissescere nubem*; also IV 1119 *Nec reperire malum id possunt quae machina vincat*; 193 *primum quod parvola causa Est procul a tergo quae provehat atque propellat*: comp. too Ovid ars I 399 *Tempora qui solis operosa colentibus arva, Fallitur, et nautis respicienda putat.* Lucr. might have written here *Et si iam sentit, nostro* cet., but we feel the present order to be more impressive: very similar is V 177 *Natus enim debet quicumque est velle manere In vita*, where he might have written *Debet enim, natus quicumque est, velle* cet.; Virg. ecl. II 12 *At mecum raucis tua dum vestigia lustro Sole sub ardenti resonant arbusta cicadis*, where, as I have learnt from Dr. B. H. Kennedy, *mecum* belongs to the clause *tua dum* cet.: Virgil too might have said *At raucis, mecum* cet: see also n. to II 250 *Declinare—sese.* 845 *comptu*: see n. to I 950 *compta.* 847 foll. *Nec si materiem* cet. alludes probably to some theory like this in St. Austin de civ. dei XXII 28 *mirabilius autem quiddam Marcus Varro ponit in libris quos conscripsit de gente populi Romani, cuius putavi verba ipsa ponenda*: *'genethliaci quidam scripserunt' inquit 'esse in renascendis hominibus quam appellant παλιγγενεσίαν Graeci: hac scripserunt confici in annis numero quadringentis quadraginta, ut idem corpus et eadem anima, quae fuerint coniuncta in homine aliquando, eadem rursus redeant in coniunctionem.'* 851 *repetentia*, another word common only to him and his constant imitator Arnobius who twice uses it, II 26 *oblitam* [animam] *quod paulo ante sciebat ex oppositu corporis amittere repetentiam priorum*, and 28 *quod enim rebus ingressis priorum repetentiam detrahit, et intra se gesta inrecordabili debet obliteratione deperdere*: it is then almost certain that Arnobius found *repetentia* in Lucr. and he seems to be referring both to this v. and 675: Lachmann's objections are wire-drawn: *repetentia nostri*, the recollection of ourselves, naturally enough indicates that continued consciousness of our personal identity which is broken only by death: so long as we live, *memori qui-*

mus nos repraehendere mente; when once we die, *non quimus*: *repetentiam nostri amittimus.* 853 *de illis* [nobis]. 854 *cum respicias*: see n. to II 41 *cum videas.* 856 *possis* is potential: see n. to I 327. 859 *repraehendere* = repetere: Wak. compares Cic. Verr. III 51 *quod erat imprudentia praetermissum, id quaestu ac tempore admonitus reprehendisti.* 860 *vitai pausa* recurs 930. *vageque* cet.: 923 *nostros tunc illa per artus Longe a sensiferis primordia motibus errant*: here then *Deerrarunt passim motus* cet. because *deerrarunt primordia, Sensifer unde oritur primum per viscera motus*, as he says 272. 862 *misere aegreque*; as *male est, bene est*: Catul. XXXVIII 2 *Malest mehercule et est laboriose*; and comp. 863 *male.. Accidere.* 864 *probet*: see n. to I 977 *probeat.* 866 *timendum* without *est*, because of *esse* according to Lachmann's rule: see n. to I 111: see also III 796 *infitiandum posse*: but the rule cannot be said to be quite certain. 868 *Differre anne*: *anne* is comparatively of so rare occurrence that it cannot I think be maintained against the express testimony of the mss. that this is not good Latin. 869 *Mortalem* cet.: Amphis in Athen. VIII p. 336 c θνητὸς ὁ βίος.. Ὁ θάνατος δ' ἀθάνατός ἐστιν, ἂν ἅπαξ τις ἀποθάνῃ.

870—893: when a man laments that after death he will rot or be the prey of beasts, be sure there is something wrong with him: he does not separate his dead carcass from his present self; and cannot see that after death there will be no other self to stand by and mourn the self thus mangled, or else burnt on the pyre; for if it is an evil after death to be torn by wild-beasts, it is surely as much one to burn in flames or the like. 870 *ubi videas*: see n. to II 41. *se.. indignarier*: I know no other instance of an acc. of the person in this sense; an acc. of the thing is common enough: comp. Aen. II 93 *Et casum insontis mecum indignabar amici* with V 350 *casus miserari insontis amici*; so that *miserari* = *indignari*; and Lamb. would read here *miserarier*: 884 *indignatur se mortalem esse creatum*; 1045 *Tu vero dubitabis et indignabere obire*; Sulpicius to Cicero ad fam. IV 5 4 *hem nos homunculi indignamur si quis nostrum interiit.* 871 *cor. posto*: see n. to 892. 872 *interfiat*; as *effio confio*: see n. to II 1004. 873 *non. sinc. sonere*, a favourite metaphor with Greeks and Latins from Plato downwards: Theaet. p. 179 D διακρούοντα εἴτε ὑγιὲς εἴτε σαθρὸν φθέγγεται. *sonere*, as 156: Enn. trag. 106 *neque irati neque blandi quicquam sincere sonunt.* *sub. stim.*: IV 1082 *Et stimuli subsunt.* 876 *dat* cet. i.e. dat id quod promittit se daturum, et id ex quo promittit se daturum. 877 *eicit*: IV 1272 *Eicit enim sulcum*; Virg. ecl. III 96 *reice capellas*, where Conington cites Stat. Theb. IV 574 *reicitque canes.* 878 *esse.. super* i.e. superesse. 880 *in morte*, during death, or, as we say, after death; just like *in vita*; and perhaps *in sensu, in odore*, as used above. 881 *illim*, the same as *illinc.* *dividit illim* i.e. ab illo se: it seems sim-

pler not to join it with *removet* and so make *a proiecto corpore* an epexegesis of it, as Lach. does; though that would perhaps resemble Virg. ecl. I 54 *Hinc.. vicino ab limite.* 883 *contaminat* has here the neutral sense that the subst. *contagia* has in 345 *corporis atque animai Mutua contagia*, and 740 *consensus contagia.* 888 *Nam* cet. with reference to *lacerari urive*, because it was vulgarly thought that to be mangled by beasts was a misfortune, to be burnt on a funeral-pile a blessing: Petron. sat. 115 *ferae tamen corpus lacerabunt. tanquam melius ignis accipiat; immo hanc poenam gravissimam credimus, ubi servis irascimur.* 889 *Tractari*; an unusual meaning: in Ennius and others it has the sense of to drag: see Forc. 890 *torrescere* appears to be a ἅπαξ λεγόμ. 891 892 denote one mode of burial, that of embalming and laying in a sarcophagus: though in the time of Lucr. burning on a pile and gathering the ashes in an urn was the common method, the other was also practised: the numerous sarcophagi of all ages are sufficient proof of this. 891 *in melle*: it appears from many passages that honey was a principal means of preserving a dead body: see Xenophon Varro Josephus in Lamb. and Hav. 892 *sum. gel. aeq. saxi* prob. denotes the bottom of the sarcophagus on which the embalmed body was laid out: 871 *corpore posto*: but bodies were sometimes stretched on the bare rock out of which the tomb was hewn, as proved by many ancient tombs that have been opened: or it may refer to a stone bed. *aequore*: IV 107 *speculorum ex aequore.* 893 common burying in the earth: Virg. geor. II 351 *Qui saxo super atque ingentis pondere testae Urgerent*, imitates this v. with quite another sense.

894—911: they say, you will see no more wife home and children; but they do not add, you care not now for these; else they would not thus grieve for you: another adds, you sleep the sleep of death, freed for ever from all ills; but we remain to mourn evermore: you might ask this man, if the dead only sleeps, why mourn for him evermore? 894 *Iam iam*: Cic. Verr. I 77 *iam iam, Dolabella, neque me tui neque tuorum liberum...misereri potest*; Catul. LXIII 73 *Iam iam dolet quod egi, iam iamque paenitet*; Aen. IV 371 *iam iam nec maxima Iuno Nec Saturnius haec oculis pater aspicit aequis.* *neque ux. opt.*: it is not certain that these words go with what follows: the older editors seem to join them with what precedes, though their stopping is ambiguous. 895 *nec dulces* cet.: Virg. geor. II 523 *dulces pendent circum oscula nati, Casta pudicitiam servat domus*; Gray elegy 21 *For them no more the blazing hearth shall burn Or busy housewife ply her evening care, No children run to lisp their sire's return Or climb his knees the envied kiss to share*: Virgil and Gray I fancy joined the *uxor* with the *domus.* 896 *tacita* cet.: Virgil was thinking of Lucr. as well as Homer when he wrote Aen. I 502 *Latonae tacitum pertemptant gaudia pectus.* 897

factis flor.: Plaut. miles 56 *te unum in terra vivere Virtute et forma et factis invictissumis.* 898 *misero misere*, κακῷ κακῶς: Plautus revels in this and like expressions: see Naeke Rhein. Mus. III p. 329, *misere miseri, scite scitus, bella belle, doctum docte, inique iniqui, mala malae male, bonus bonis bene feceris, cupida cupiens cupienter cupit*: comp. the *Poorly poor man he lived, poorly poor man he died* of Spenser: 1015 *Est insignibus insignibus. omnia* cet.: Mommsen inscr. regni Neapol. 3133 *Apstulit haec unus tot tantaque munera nobis Perfidus infelix horrificusque dies.* 900 *Illud* cet. shews indirectly who the speakers are, as in 909. 901 *super* = insuper: see n. to I 649. *desiderium* cet.: 918 *Aut aliae cuius desiderium insideat rei.* 904 *Tu quidem ut*: a rare form of elision in hexameter verse: see Luc. Mueller de re metr. p. 290: but found also VI 80 *Quam quidem ut*: comp. III 339 *Non enim ut*; V 589 *Alteram ŭtram in partem*; IV 616 *Plusculum habent*; 618 *spongiam aquai*; I 1012 *alterum eorum.* Orell. inscr. 1192 SOMNO. AETERNAL. C. MATRINI VALENTI. PHILOSOPHI EPICUR....MATRINIA CONIUGI INFELICISSIM. 905 *Duncan's in his grave: After life's fitful fever he sleeps well*: faerie queene I 9 40 *He there does now enjoy eternall rest And happy ease which thou dost want and crave.* 906 *cinefactum*: Lach. assails Nonius for explaining it 'in cinerem dissolutum': after the analogy he says of *tumefacere rubefacere* and the like it must be connected with a supposed neut. verb *cinēre*: *prope* must be joined with it; so *prope cinef.* means 'qui iam prope cineris colorem et adspectum nanctus est.' He thus in his short enigmatical way implies that *bustum* here is not the pyre, but the tomb in which the body was laid entire and gradually assumed from time the hue of ashes. *horrifico busto* I have no doubt means the funeral-pile; and if *cinefactum* cannot have the meaning given to it by Nonius, it must imply that the friends looked on and wept while the body was caught by the flames and gradually changed its natural colour for that given to it by the scorching of the fire. This is perhaps more poetical than to give it the meaning assigned to it by Nonius, though it is bold in such a case to speak dogmatically like Lach.; but it spoils the fine passage to join, as he does, *prope* with *cinef.* 907 *Ins. defl.*: Hor. epist. I 14 7 *dolentis Insolabiliter.* 908 *maerorem* seems rather to have the force of *dolorem*: Cic. ad Att. XII 28 3 *maerorem minui*: *dolorem nec potui nec, si possem, vellem.* 909 *Illud ab hoc*: here, as 900, with poetical indirectness he tells who is the speaker of 904—908: probably the son or nearest relation is singled out. 911 *Cur quicquam aeterno* cet. with reference to 907 *aeternumque Nulla dies* cet.

912—930: men say glass in hand 'enjoy the moment, it cannot be recalled'; as if after death one felt the want of wine or aught else: in sleep we have no thought for life; how much less then in death if there

can be a less than nothing! for death is a more complete dispersion of our matter, a sleep that knows no waking. 912 *tenentque*: I 495 *manu retinentes pocula rite*. 913 *saepe* = ut saepe fit: see n. to v 1231. *ora* is very vaguely used by the poets: here it must mean the brows: Aen. VI 772 *umbrata gerunt civili tempora quercu*: for it would be far-fetched to suppose that the crown on the head shaded the face. 914 *Ex an. ut dic.*: IV 1195 *facit ex animo saepe*; Ter. eun. 175 *Utinam istuc verbum ex animo ac vere diceres*; Catul. CIX 4 *id sincere dicat et ex animo*. *brevis* cet.: Amphis in Athen. VIII 336 C Πῖνε παῖζε· θνητὸς ὁ βίος, ὀλίγος οὐπὶ γῆς χρόνος. 915 *fuerit* has its well-known force: *Sive erimus seu nos fata fuisse velint*. 917 *torres*: Lach. quotes from the glossar. Cyrilli ἀπόκαυμα *ustilacio torres*; and for the form compares *labes tabes pubes* cet. 918 *aliae*: this gen. is found even in Cic. de div. II 30 *aliae pecudis iecur nitidum atque plenum est, aliae horridum atque exile*. *rei* monosyll. as IV 885 *illius rei constat imago*: see n. to I 688. Plaut. miles 802 has the dat. *Qui nisi adulterio studiosus rei nulli aliaest inprobus*, where Ritschl quotes Paulus Fest. p. 27 '*aliae rei* dixit Plautus pro eo quod est *alii rei*.' 923 924 see n. to 860 *vageque* cet. 925 *correptus* cet.: 163 *Corripere ex somno corpus*. 928 *disiectus* seems to be a ἅπαξ λεγόμ. 929 *leto* appears to be the abl. gov. of *con* in *Consequitur*: sequitur cum leto; though Lamb. may be right in explaining it by 'in leto, in morte' or else 'per letum': or it may be the dat. 930 *secuta* seems to have the force it has in the phrases, *res secuntur victorem, heredem* and the like: fall to the share of: comp. Colum. VII 4 2 *cui si quid detrahitur fraude vilici, clades sequitur gregem*. Cic. Tusc. disp. I 92 *habes somnum imaginem mortis eamque cotidie induis, et dubitas quin sensus in morte nullus sit, cum in eius simulacro videas esse nullum sensum?*

931—977: if nature were to say to you or me 'why lament your death? if your life has been a pleasant one, why not go to rest satisfied with the feast? if the contrary, why not end your troubles? for I have nothing new to give you, if you were to live for ever': we must allow her words to be true: if an old man were to bemoan himself, would she not with justice thus chide? 'a truce with tears; the fault is your own, if you have not had enjoyment'; make way for others: they too will follow you, as you now follow those before you; life is but a limited tenure: what took place before our birth is nothing to us; judge from this of what the future will be after our death. 932 *hoc alicui.. increpet*: Livy I 51 1 *haec Aricinus in regem Romanum increpans*. 933 *Quid tibi tanto operest* seems to mean *quid tibi est tam magni momenti*. 935 *Nam gratis* cet., 938 *Cur non*, 940 *Sin* cet., 943 *Non* cet.: *sin* being expressed in the second condition makes the omission of *si* less harsh in the first: Hor. ars 439 *melius te posse negares.., delere iubebat*

...*Si defendere..malles, Nullum ultra verbum* cet.; Iuven. III 100 *rides, maiore cachinno Concutitur; flet, si* cet. 935 *gratis*: its opposite *ingratis* is used by Lucr. four times: Plautus and Terence have the full forms *gratiis* and *ingratiis*, but Cicero uses *gratis* and *ingratis*: they mean with the will and against the will respectively. 936 *pertusum* cet.: 1009 *laticem pertusum congerere in vas*: the allusion here therefore must be to the Danaids: Plaut. pseud. 369 *In pertusum ingerimus dicta dolium; operam ludimus.* 937 *ingrata* is opposed to 935 *gratis*. 938 *plenus* cet.: comp. 960 *Quam satur* cet. and Hor. sat. I 1 118 *exacto contentus tempore, vita Cedat uti conviva satur*; then 121 *verbum non amplius addam*; and Lucr. 941 *cur amplius addere quaeris.* Orellius l. l. quotes from Stobaeus ὥσπερ ἐκ συμποσίου ἀπαλλάττομαι οὐδὲν δυσχεραίνων, οὕτω καὶ ἐκ τοῦ βίου, ὅταν ἡ ὥρα ᾖ. Comp. too 969 *quam tu cecidere cadentque* with Hor. ars 70 *quae iam cecidere cadentque*: 971 perhaps with epist. II 2 159: see n. there: 996 *Qui petere a populo fasces saevasque secures Imbibit et semper victus tristisque recedit* with epist. I 16 33 *ut si Detulerit fasces indigno detrahit idem. 'Pone, meum est' inquit: pono tristisque recedo*: 1028 *magnis qui gentibus imperitarunt* with sat. I 6 4 *qui magnis legionibus imperitarent*; as Lucr. V 1227 has *Induperatorem..Cum validis legionibus*: 1063 *Currit agens mannos ad villam*, 1066 *Aut abit in somnum gravis atque oblivia quaerit*, 1068 *Hoc se quisque modo fugit (at quem scilicet, ut fit, effugere haut potis est, ingratis haeret)* with epist. I 7 77 *Impositus mannis*, sat. II 6 60 *O rus, quando ego te aspiciam..nunc somno et inertibus horis Ducere sollicitae iucunda oblivia vitae*, 7 112 *Non horam tecum esse potes, non otia recte Ponere, teque ipsum vitas fugitivus et erro..iam somno fallere curas: Frustra, nam comes atra premit sequiturque fugacem*, od. II 16 19 *patriae quis exul Se quoque fugit?* epist. I 14 13 *In culpa est animus qui se non effugit umquam.* Horace must have studied this part of Lucr. which would well agree with his philosophy.

939 *capis securam* cet.: Ov. fasti VI 331 *Vesta iacet placidamque capit secura quietem*: comp. with what precedes Sen. de benef. III 4 *hoc loco reddendum est Epicuro testimonium qui adsidue queritur quod adversus praeterita simus ingrati, quod quaecumque percepimus bona non reducamus nec inter voluptates numeremus, cum certior nulla sit voluptas quam quae iam eripi non potest.* 941 *in offensust*: *offensa* in Cicero; as ad Att. IX 2 a 2 *negas te dubitare quin magna in offensa sim apud Pompeium*: so *in invidia in honore, in amore esse*: IV 1156 *Esse in deliciis summoque in honore vigere.* 943 [cur] *Non* cet. *finem facis*: 1093 *qui finem vitai fecit*; Ter. Phorm. 22 *De illo iam finem faciam dicendi mihi Peccandi cum ipse de se finem non facit*: but the phrase is very common. 945 *eadem sunt omnia semper*, 947 *eadem tamen omnia restant*: so says the preacher I 9 *the thing that hath been is*

that which shall be, and that which is done is that which shall be done; and there is no new thing under the sun. 948 *si pergas,* 949 *si numquam sis moriturus*: I doubt whether I have done right in reading *pergas* for *perges* of mss. in deference to Lamb. and Lach.: see n. to II 36 *iacteris...cubandum est*: here the decisive future, followed by the more hesitating potential *sis moriturus* in a case which must ever continue doubtful, appears to suit the context. Lamb. kept *perges,* as *iacteris,* in ed. 1; but tacitly changed both in ed. 3: Lach. makes no objection to *iacteris.* 948 *Omnia* cet.: 1090 *licet quot vis vivendo vincere saecla*; I 202 *Multaque vivendo vitalia vincere saecla,* where see n. 950 *intendere litem* is a legal phrase; the *intentio* being the formal claim with which the accuser concluded, when he called on the judge to condemn the defendant in such and such a penalty: Gaius IV 41 *intentio est ea pars formulae qua actor desiderium suum concludit... si paret, N. N....dare oportere* cet. 955 *abhinc* of the future, a very rare sense: Lach. and before him Forc. cite Pacuvius 21 *seque ad ludos iam inde abhinc exerceant.* 956 *perfunctus v. praemia*: 734 *mala multa...fungitur*; 940 *ea quae fructus cumque es*; IV 1078 *quid primum...fruantur*; 1095 *Nil datur...fruendum*; II 659 *potitur primordia*; III 1038 *Sceptra potitus*; IV 760 *quem...mors et terra potitast.* 957 Bentl. quotes Democr. frag. 31 Mullach ἀνοήμονες τῶν ἀπεόντων ὀρέγονται, τὰ δὲ παρέοντα...ἀμαλδύνουσι: comp. too Eur. Hipp. 183 Οὐδέ σ' ἀρέσκει τὸ παρὸν τὸ δ' ἀπὸν φίλτερον ἡγῇ. 960 *possis* is the potential. 963 *incilet,* an old word found in Attius Pacuvius Lucilius. 966 *Nec quisquam* cet. but his matter is used for the growth of other things. 967 *Materies opus est*: see n. to I 1051. 969 *ante haec*: these very things which now flourish by your decay, have in other combinations fallen themselves as you now fall, and in future combinations will fall again. 971 every one has the *usus,* and not only the *usus,* but the *usus et fructus*; for *usu* is doubtless put with poetical brevity for *usu fructu*: *ususfructus,* says the digest, *est ius alienis rebus utendi fruendi, salva rerum substantia*: the *usus* was much more limited; the *fructus* includes the *usus,* not the *usus* the *fructus.* Curius says to Cicero ad fam. VII 29 1 *sum enim* χρήσει μὲν *tuus,* κτήσει δὲ *Attici nostri*; *ergo fructus est tuus, mancipium illius*; and Cicero replies in 30 2 *cuius* [Attici] *quoniam proprium te esse scribis mancipio et nexo, meum autem usu et fructu, contentus isto sum. id est enim cuiusque proprium, quo quisque fruitur atque utitur*: but nature gives to none the *mancipium ex jure Quiritium,* the full and absolute ownership of life; life is only lent; its usufruct as the digest says is only *ius alienis rebus utendi fruendi*; man is never *dominus*; nature keeps the *dominium* to herself: *quaedam, si credis consultis, mancipat usus,* says Horace, but not life; no *usucapio* is in force here: οὔτι γὰρ κεκτήμεθα Ἡμέτερον αὐτὸ πλὴν

ἐνοικῆσαι βίον, says Euripides or Moschion of the body. 973 *quam nascimur ante*: IV 884 *quam mens providit quid velit ante.* 977 Seneca must have been thinking of Lucr. 830—977 when he penned epist. 54 4 *mors est non esse, id quale sit iam scio. hoc erit post me quod ante me fuit. si quid in hac re tormenti est, necesse est et fuisse antequam prodiremus in lucem: atqui nullam sensimus tunc vexationem* [832 *anteacto nil tempore sensimus aegri*] . . *utrimque vero alta securitas* cet. [977 *non* omni somno securius *exstat*]. Arist. eth. Nicom. III 9 with truer instinct, φοβερώτατον δ' ὁ θάνατος· πέρας γάρ, καὶ οὐδὲν ἔτι τῷ τεθνεῶτι δοκεῖ οὔτ' ἀγαθὸν οὔτε κακὸν εἶναι.

978—1023: the stories told of hell are really true of this life: Tantalus Tityos Sisyphus, the daughters of Danaus, are but types of people tormented here by various lusts and passions: Tartarus too Cerberus the furies have no existence; but are pictures of the various punishments of crime in this world; and even if these are escaped, the tortures of conscience make a hell of earth. 980 foll. this punishment is assigned by him to many, as Pindar Cicero and Eurip. Orest. 5, a passage Lucr. may have had before him, Τάνταλος Κορυφῆς ὑπερτέλλοντα δειμαίνων πέτρον Ἀέρι ποτᾶται; where see Porson's copious note: he cites among others Pausan. x 31 at end, who describes a picture of Polygnotus representing the Homeric punishments and in addition τὸ ἐκ τοῦ ἐπηρτημένου λίθου δεῖμα: Polygnotus, Pausanias adds, followed Archilochus; but whether the latter invented the punishment he cannot tell. 981 *cassa form.* recurs 1049. 983 *casum*: there is an evident play on the literal and figurative meaning of this word: comp. with the above Cic. de fin. I 60 *accedit etiam mors quae, quasi saxum Tantalo, semper impendet, tum superstitio qua qui est imbutus, quietus esse numquam potest*: he may well have been thinking of Lucr. here, as in Tusc. disp. IV 35 he draws a different moral from some tragic poet. 986 *Perpet. aetatem*: VI 236 *Quod solis vapor aetatem non posse videtur Efficere.* 989 *Optineat*: Wak. cites Livy XXII 2 8 *omnia obtinentibus aquis*: for other instances see Forc. 993 *volucres* seems to be explained by *angor* and *curae*, but as a poet he joins them by the simple copula *atque*, and does not say *hoc est angor*, or the like. *anxius angor* recurs VI 1158: comp. Cic. Tusc. disp. IV 27 *estque aliud iracundum esse, aliud iratum, ut differt anxietas ab angore; neque enim omnes anxii qui anguntur aliquando, nec qui anxii semper anguntur, ut inter ebrietatem et ebriositatem interest, aliudque est amatorem esse, aliud amantem*: so that Lucr. may mean to express an abiding anguish; or it may be only one of his many poetical pleonasms and assonances: see n. to I 826 *sonitu sonanti*; and comp. Virgil's imitation Aen. IX 89 *timor anxius angit*; and Enn. trag. 256 *otioso in otio*, to which Cicero's rule might apply. 996 *fasces* cet.: V 1234 *pulchros fascis saevasque*

secures; Aen. VI 819 *consulis imperium hic primus saevasque secures Accipiet*: in Lucr. *Nam petere imperium* follows immediately. 997 *Imbibit*: VI 72 *ut ex ira poenas petere inbibat acris*: Forc. gives examples of this use from Cicero and Livy. 1000 *nixantem*: IV 506 *nixatur*; VI 836 *nixari*: lexicons give no other instance except Aen. V 279, where indeed M P V have *Nixantem*, R *Nexantem*. 1000—1002: Odys. λ 595 Ἤτοι ὁ μὲν σκηριπτόμενος χερσίν τε ποσίν τε Λᾶαν ἄνω ὤθεσκε ποτὶ λόφον· ἀλλ' ὅτε μέλλοι Ἄκρον ὑπερβαλέειν, τότ' ἀποστρέψασκε κραταιΐς· Αὖτις ἔπειτα πέδονδε κυλίνδετο λᾶας ἀναιδής. 1001 *rusum*: see n. to 45 *prosum*. 1004 *explere* cet.: Nonius p. 424 '*expleri* et *satiari* hanc habent differentiam: *expleri* est tantummodo plenum esse, *satiari* supra modum et abundantiam. Lucretius lib. VI *Deinde animi ingratam naturam pascere semper, Atque expleri bonis rebus satiarique numquam*. M. Tullius de re publica lib. VI *graves enim dominae* cet. *quae quia nec expleri nec satiari ullo modo possunt*' cet.: the words are practically synon. both in Lucr. and Cicero who de senect. 47 has *satiatis vero et expletis* with the order inverted. 1005 *circum cum redeunt* expresses Homer's περιπλομένων ἐνιαυτῶν. 1010 *potestur*: see n. to I 1045 *queatur*.

1011 see notes 1 and Servius there; and comp. Cic. Tusc. disp. I 10 *dic, quaeso, num te illa terrent, triceps apud inferos Cerberus, Cocyti fremitus, travectio Acherontis*, Mento summam aquam attingens enectus siti Tantalus, *tum illud quod* Sisyphu' versat Saxum sudans nitendo neque proficit hilum, *fortasse etiam inexorabiles iudices Minos et Rhadamanthus?* in the vss. lost mention may well have been made of Cocytus Acheron Rhadamanthus or Minos, and of Ixion's punishment, and thus antecedents got for *Qui sunt*: in geor. IV Ixion's wheel is mentioned in the same way together with Tartarus Cerberus and the furies; and his wheel would well represent some of the punishments on earth spoken of presently. 1012 *eructans faucibus aestus*: Aen. VI 297 *Aestuat atque omnem Cocyto eructat harenam*, 240 *halitus atris Faucibus effundens*. 1015 *luella*: see n. to I 39 *loquellas*: this word seems to be a ἅπαξ λεγόμ. 1017 *robur* must be the lowest dungeon in a prison, hence called *carcer inferior*, into which criminals were thrown before execution: Tac. ann. IV 29 *robur et saxum aut parricidarum poenas minitantium*; Livy XXXVIII 59 10 *ut in carcere..includatur et in robore et tenebris exspiret*: the famous *robur Tullianum*, still to be seen at Rome, is described by Sall. Cat. 55: some take *robur* to mean the *eculeus*; and Valer. Max. VI 8 1 joins *laceratus verberibus eculeoque inpositus, candentibus etiam lamminis ustus*; and Sen. epist. 78 19 *plus est flamma et eculeus et lammina*: Cic. Verr. V 163 *cum ignes ardentesque lamminae ceterique cruciatus admovebantur*: the *flamma* of Seneca and *ignes* of Cicero = the *taedae* of Lucr. *pix*: Plaut. capt. 596 *te, si hic*

sapiat senex, Pix atra agitet apud carnificem tuoque capiti inluceat. 1018 the const. appears to be *adhibet sibi stimulos terretque se*: comp. 68 *Unde.. Effugisse..remosse*, and n. there. *conscius sibi* and *conscius factis* are both common, but not the double dat. 1020 1021 comp. Attius 577 *Neque ulla interea finis curai datur.* 1023 *stultorum*: extremes meet: the epicureans and stoics had many points in common, and among these that of calling the rest of the world fools: *stolidus* he twice uses, and both times of the stoics, as we have seen. With what precedes comp. Democr. frag. 119 Mullach from Stob. flor. cxx 20 *ἔνιοι θνητῆς φύσιος διάλυσιν οὐκ εἰδότες ἄνθρωποι, ξυνειδήσι δὲ τῆς ἐν τῷ βίῳ κακοπραγμοσύνης τὸν τῆς βιοτῆς χρόνον ἐν ταραχῇσι καὶ φόβοισι ταλαιπωρέουσι, ψεύδεα περὶ τοῦ μετὰ τὴν τελευτὴν μυθοπλαστεύοντες χρόνου*: comp. too v 1154 foll. and Epicurus and Seneca cited there.

1024—1052: you may say too to yourself 'the best and greatest kings conquerors sages poets, Epicurus himself, have died; why should I then seek to live, who dream away life amid cares and delusions?' 1024 *possis*: this potential Lucr. delights in, as has been so often noted above. 1025 the words are from Enn. ann. 150 *Postquam lumina sis oculis bonus Ancu' relinquit*; the thought of this and the next v. from Iliad Φ 107 *Κάτθανε καὶ Πάτροκλος ὅ περ σέο πολλὸν ἀμείνων*: Lach. is doubtless right in making the whole of this passage a soliloquy of the reader. *sis*: see n. to I 1022 *se suo.* 1026 *improbe* is *ἀναιδής*, unconscionable, immoderate in expectation; as Hor. epist. I 10 40 *dominum vehit improbus*; and *improbe* in sat. II 2 104, 3 200: so of things *labor improbus*, and Sen. nat. quaest. IV 4 3 *austro imber improbior est*, and the like. 1027 *rer. poten.*: see n. to II 13. 1029 *magnum*: he is thinking of the power of the sea generally without particular reference to the narrow Hellespont. 1031 *lucunas*: this spelling is confirmed by our mss. here and VI 538 and 552, and by M in Virg. geor. III 365: the change of ă into ŭ in compounds is very frequent, as IV 605 *Dissuluit*; so *prosulio desulio insulio* in Plautus: comp. *calco* and *conculco* etc. *quatio* and *concutio* etc. *clam* and *occulo*, *rapio* and *surruptus* etc. a few instances out of many. 1032 comp. culex 32 *Non Hellespontus pedibus pulsatus equorum.* 1034 *Scipiadas*: see n. to I 26 *Memmiadae*, where it is observed that *Scipiadas* from *Scipio* is a more irregular hybrid than the other: the termination *-as* is confirmed by our mss. and those of Lucilius Virgil and Horace. *Scip. bel. fulmen*: Aen. VI 842 *geminos duo fulmina belli, Scipiadas, cladem Libyae*; Silius VII 106 *ubi nunc sunt fulmina gentis, Scipiadae*, XV 340 *Carthaginis horror*: all these passages might have reference to a lost one of Ennius or other old poet, and it is natural enough that both the elder and younger Africanus should be termed thunderbolts of war; but then Cic. pro Balbo 34 says *cum duo fulmina nostri imperii subito in Hispania Cn. et P. Scipiones extincti*

occidissent. Gnaeus and Publius were great generals, perhaps not inferior to the more fortunate nephew and son; but still when they met so disastrous an end, it is singular Cicero should call them the two thunderbolts of the empire. When we think of the words *scipio* and *scapus*, and the English *shaft*, and σκίπων σκᾶπτον σκῆπτρον, and then σκηπτός σκήπτω and cognate words, and their connexion with the thunderbolt, we might be tempted to think that the Scipios loved to refer their name to it rather than to the more homely staff. I find but one recorded coin of the family, and it has on the reverse a Jupiter with thunderbolt in the right and sceptre in the left hand; which might recall both meanings of the word. Valerius Max. III 5 1 has this remarkable expression in relating the degeneracy of Scipio's son, *dii boni, quas tenebras e quo fulmine nasci passi estis!* 1035 *famul inf.*: after Enn. ann. 317 *e regno summo ut famul infimus* [mss. *optimus*] *esset.* Paulus Fest. p. 87 '*famuli* origo ab Oscis dependet apud quos servus *famel* nominabatur': with *famul* may be compared the many words ending in *r* which have lost the final *us*, as *puer vesper ager socer tener* and the like. 1037 *Hel. com.*: Aen. IX 775 *Crethea Musarum comitem*; Hesiod theog. 1 Μουσάων Ἑλικωνιάδων, 99 ἀοιδὸς Μουσάων θεράπων; hymn. Hom. XXXII 19 ἀοιδοὶ Μουσάων θεράποντες. 1038 *Sceptra potitus* is perhaps from Attius 590 *sceptrum poteretur patris. eadem aliis*: II 919 *animalia sint mortalibus una eademque*; IV 1174 *eadem facit, et scimus facere, omnia turpi.* 1039 *mat. vetustas*: his age at his death is variously given from 90 to 109 years. 1040 *memores motus* would produce memory, and thereby the power of consistent thought, just as the *sensiferi motus* produce sense. Lucr. by placing Democritus here would seem to give him rank next to Epicurus: he thus displays a more thankful sense of obligation than his master is recorded to have done.

1042 *obit decurso*: Lach. in his elaborate note, after attempting to prove that the last syll. of *iit* and its compounds is always long, proceeds to shew that Lucr. could not have used the contracted form *obit* before a consonant: why? because the poets have three different usages in regard to these forms; a few, Phaedrus Seneca Silius, admit them only before consonants or at the end of a verse; the old comic poets either before a vowel or consonant; most, Virgil Ovid Lucan Statius Martial and others, only before a vowel: now Lucr. twice uses them before a vowel, IV 339 (314) *Ater init oculos*, 771 *perit alioque*; unless therefore he chose to descend to the level of a comic poet, he could not also say *obit decurso*, as he had taken his stand on the other practice. This curious conclusion is refuted by Luc. Mueller de re metr. p. 399 in a few lines: Martial Lucan Statius are placed by Lach. in the third and most correct class; but Martial not only says I 62 6 *abit Helene*, II 64 3 *transit et Nestoris aetas*; but also lib. spect. 16 1 *Raptus abit media*, X

77 2 *perit fecit*; Lucan not only has *abit aut*, but also IX 205 *obit Pompeio*, 1098 *perit caruere*; Statius not only *subit ibi* and the like, but also Theb. VII 439 *init fecitque*, X 205 *adit non*: what Lach. says of Virgil has some support from mss., but taking into account that poet's usual rhythm it seems almost incredible that he should five times have written *éxit, éxit, tránsit, tránsit, tránsit*; never once divided the word between two feet, *exít* etc.: Martial does not hesitate to say *transít et*: take *audent fundunt* or any other word of the same quantity and see how the case stands with them. It may be said on the other side 'why is not *exiit* or *transiit* used by Virgil in the 5[th] foot?' but these words only occur five times; and I find that he uses *audiit* 13 times in all, 11 times in the first foot: of the two exceptions one is a case of repetition, *Audiit.. audiit amnis.* It is however possible, as I have remarked to 776 *conubia*, that Virgil so placed these words as to give his readers the choice of taking them for a dactyl or spondee, as they pleased. Ovid's exceptional and repeated lengthening of *interiit abiit rediit* etc. as well as *petiit* is evidently done in defiance, as if he would say 'whoever is afraid to lengthen these words, I am not': his example appears to me rather to go against than support Lach.; or else why is he singular among the poets of his day in this practice? nor is the *redieit venieit* occasionally found in old inscriptions any 'firmissimum argumentum': *sibei ubei ibei nisei quasei* occur in the new corpus inscr. more than 100 times, *fueit* is also found; yet Virgil surely might use all these short: in Ennius' time all perfects in *-it* were long. Neither Wagner philol. suppl. I p. 316 nor Conington to Aen. II 497 accepts his Virgilian theory; and as to Plautus Fleckeisen in Jahn's Jahrb. LXI p. 59 foll. has deserted him and retracted his former opinion. Lucr. three times uses the contracted perf. of the first conj. I 70 *Irritat*, V 396 *superat*, VI 587 *Disturbat*: in each case a vowel follows; but it may be remarked that the reading in the first two instances rests on a conjecture, though a highly probable one.

1042 *dec. lum. vitae*: Lach. says 'interpretes *vitae lumen* quomodo *decurratur*.. non recte explicant, scilicet obliti se in libro II 79 legisse *Et quasi cursores vitai lampada tradunt*': I much doubt this allusion, and am disposed with Lamb. to look on it as a mixture of two metaphors, *decurso vitae spatio* and *extincto lumine vitae*: it may have reference to the course of the sun. 1044 *Restincxit*: Cic. orator 5 *nec ipse Aristoteles admirabili quadam scientia et copia ceterorum studia restinxit*: the insertion of *c* before *x* is interesting as another proof that doubling the consonant did not change the sound: *cx cs x* were all pronounced alike, just as *x xs cs* were: see n. to 545 *obbrutescat*: it is interesting too as a proof, if proof were needed, that as *g* became *c* before *t* in *rectum auctum* and the like, so did it become *c* in *rex rexi auxi* cet.:

see introduction p. 26. 1046 *vivo atque videnti*, an alliterative proverb, as Lamb. has seen, strengthened by the oxymoron *Mortua cui vita est*: it occurs in Plautus and Terence and Cic. pro Sestio 59 *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus.* 1048 *vigilans* cet.: Plaut. Amph. 697 and capt. 848 *vigilans somniat*; so that this line too is proverbial: Ter. eun. 1079 *stertit noctis et dies*: unless I greatly err, there are very many proofs in Lucr. that he was well acquainted with this play, as might have been expected. 1051 *Ebrius* may here mean, having the mind disordered and stupefied, or else reeling like a drunkard under the load of trouble: the metaphor is more obvious, when Horace speaks of one *fortuna dulci Ebria*, or Catullus of a lover's *ebrios ocellos.*

1053—1075: men feel a burden pressing on their minds; but if they knew why it weighs upon them, they would not live as they do, trying by constant change of place to escape from themselves: they would give up everything else to study the nature of things, since they have to learn what their condition is to be not for an hour, but for all eternity. 1056 *mali moles*: the assonance is evidently designed; as Cic. in Catil. III 17 *non facile hanc tantam molem mali a cervicibus vestris depulissem*; de orat. I 2 *in eo maximae moles molestiarum et turbulentissimae tempestates exstiterunt*, where there is assonance and alliteration. 1058 foll. comp. Enn. trag. 256 *Otioso in otio animus nescit quid velit...Imus huc, illuc hinc; cum illuc ventum est, ire illinc lubet: Incerte errat animus, praeter propter vitam vivitur.* 1063 *mannos* were small Gallic horses famous for swiftness and evidently in great demand at Rome for use in harness: Horace mentions them in his odes epodes and epistles. *praecipitanter* seems not to occur elsewhere. 1068 *Hoc se* cet. quoted by Sen. de tranq. an. 2 14 *aliud ex alio iter suscipitur et spectacula spectaculis mutantur. ut ait Lucretius* Hoc se quisque modo semper fugit. *sed quid prodest, si non effugit? sequitur se ipse et urget gravissimus comes*: he rightly marks the antithesis between *fugit* and *effugit*; comp. Cic. de fin. V 20 *ne vitationem quidem doloris ipsam per se quisquam in rebus expetendis putavit, nisi etiam evitare posset*; and Sen. epist. 93 at end *quid autem ad rem pertinet quam diu vites quod evitare non possis?* Hor. epist. I 14 13 *In culpa est animus qui se non effugit umquam.* 1069 *ingratis*: see n. to 935 *gratis*. *et odit* [se]: see n. to VI 1022 on Lucretius' love of parentheses like this. 1070 *morbi aeger* i. e. quia morbum sentit, sed quibus e causis fiat nescit: comp. 1053 foll. 1071 *rebus relictis*, well illustrated by Lamb. from Plautus and Terence, means *ceteris rebus relictis.* 1072 *Felix qui potuit rerum cognoscere causas*; and Epic. in Diog. Laert. X 143 οὐκ ἦν τὸ φοβούμενον λύειν ὑπὲρ τῶν κυριωτάτων μὴ κατειδότα τίς ἡ τοῦ σύμπαντος φύσις κ.τ.λ.

1076—1094: again why such a craving for life mid troubles and dangers? death cannot be shunned: no nor does length of life create any new pleasure; while the future may bring evil as well as good fortune; and live as long as we may, the eternity of death will ever be the same. 1076 *in dub. periclis*, as 55. 1079 *pote* is a neut. adj. and *est* is om. as in *suave, nec mirum, quid mirum*: see n. to II 1 and 5: V 836 *Quod pote, fuit* is om.: *pote* is thus used by the best writers. 1081 *proculitur*: see n. to II 1115. 1082 like 957 *Sed quia semper aves quod abest, praesentia temnis.* 1084 *hiantis*, keeping up the metaphor of *sitis*. 1085 has a proverbial smack, as Virg. geor. I 461 *quid vesper serus vehat*: Gell. XIII 11 *lepidissimus liber est M. Varronis ex satiris Menippeis qui inscribitur* nescis quid vesper serus vehat. 1087 *Nec prorsum*: see n. to I 748. 1090 *condere saecla*: Hor. od. IV 5 29 *Condit quisque diem*; Plin. epist. IX 36 4 *quamquam longissimus dies cito conditur*; Virg. ecl. IX 52 *longos.. cantando condere soles*, where Conington says *condere* to bury, for to see go down, and he and Heyne compare Callim. epigr. II 3 Ἠέλιον λέσχῃ κατεδύσαμεν: but such a use is better suited to *sol* or *dies*, than *saecla*; and it seems likely that Lucr. was thinking rather of the technical *condere lustrum*, though what the exact force of that expression is or how far it differs from *facere lustrum*, I cannot tell: yet Livy I 44 2 says *idque conditum lustrum appellatum, quia is censendo finis factus est*, and Hor. od. II 4 24 *claudere lustrum*; so that the word must have suggested to them the notion of closing and completing. 1091 *Mors aeterna*: 869 *mors inmortalis*.

BOOK IV

1—25 = I 926—950, except 11 *Nam*, I 936 *Sed*; 24 *percipis*, I 949 *perspicis*; 25 *ac persentis utilitatem*, I 950 *qua constet compta figura*: see Lachmann's explanation of this last variation in notes 1 to 44—47; yet I do not think that Lucr. who like other early writers repeats words and phrases with such indifference, would have hesitated as to a single word *compta* with an interval of two vss.: the fact is *qua constet compta figura* would have been here utterly out of place, because what he says about the *figura* of the universe is said between I 950 and the end of II. 25 *persentis*: III 249 he uses *persentiscunt*; but Virg. Aen. IV 448 also has *persentit*.

26—41: having explained the nature of the soul, I now go on to an important question that of idols or images, which like small films constantly proceed from the surface of all things and float in the air, and

often frighten us when sick or asleep: these we must not think to be souls from hell, which have survived the dissolution of the body. 26 *Atque* cet.: so III 31 he begins *Et quoniam docui* cet. 27 *compta*: see n. to I 950 *compta*. 28 *Quove*: see n. to I 57. *ordia prima* a curious transposition of *primordia* to be compared with 313 (337) *ea propter*, VI 962 *et facit are*. 29 *vementer* cet.: comp. II 1024 *tibi vementer nova res molitur* cet. 30 *quae rerum simulacra voc.*: Epic. in Diog. Laer. X 46 τούτους δὲ τοὺς τύπους εἴδωλα προσαγορεύομεν: see n. to I 132 and II 112, where is said that he uses *imago imaginibus simulacra*, as the metre requires, and also *effigias*, to express these εἴδωλα or τύποι of Epicurus. I have all through used idols and image as perfect synonymes for the synonymes *simulacra* and *imago* respectively. *Catius* a contemporary of Lucr., with whom Cicero and Cassius make themselves merry in ad fam. XV 16 and 19, used the word *spectra*; Cicero himself *imagines*. 31 comp. 43 50 *summo de corpore rerum, Quae quasi membranae* cet. 33—35 comp. I 132 *Et quae res nobis vigilantibus obvia mentes Terrificet morbo adfectis somnoque sepultis, Cernere uti videamur* cet. and see n. there. 34 *figuras* is the word used by Quintil. inst. X 2 15 to express the εἴδωλα or *simulacra*: *illas Epicuri figuras quas e summis corporibus dicit effluere*. 35 *simulacraque luce carentum* adopted by Virg. geor. IV 472. 37 *ne forte* cet. depends on 29 30 *Nunc agere incipiam* cet.: he here emphatically repeats what he said in the similar passage I 132—135, that it is to free men from these baseless terrours he undertakes this question: if it had not been for these fears, οὐκ ἂν προσεδεόμεθα φυσιολογίας: it is, echoes Lucr., the *naturae species ratioque* which alone can free us from them: comp. too what he says in a similar spirit III 31 foll. This passage has the same unfinished disjointed appearance that other passages introducing new subjects present: much that is said, has been similarly said before, or will be repeated presently: we have spoken of this above and shall have to refer to it again in V and VI: it is one of many tokens that the poem is in an unfinished state. 41 *discessum dederint*: see notes 1 and n. to I 819. Lucr. uses *dare* with the same latitude as Virgil and other poets; thus I 819 and elsewhere *dent motus* means 'impart motion' to others, but II 311 *dat motus* = facit motus, movetur; I 288 *dat stragem* = causes ruin, but II 1149 *dabunt labem putrisque ruinas*, V 347 *darent cladem magnasque ruinas* are said of the things themselves falling to ruin: comp. too *dare pausam* = facere pausam, cessare, *dare sonitum, crepitum, fragorem*, all of which are found in Lucr. Virgil carries this use of *dare* farther perhaps than Lucr.: Aen. XII 575 *Dant cuneum* = faciunt cuneum: comp. too Aen. VI 76 *finem dedit ore loquendi*, which = Lucilius' *pausam facit ore loquendi*. When we thus find *dare finem, cuneum, motus, ruinas, discessum* etc. with the precise force of *facere*

finem etc., one is tempted to look on it as a half-conscious reminiscence of the *do* which survives in *credo abdo condo subdo* and has the same origin as the Greek *τίθημι* and the Sanscrit *dadhâmi*: see Max Mueller science of language, 2nd series, p. 205 'in Latin it was equally impossible to distinguish between the roots *dâ* and *dhâ*, because the Romans had no aspirated dentals; but such was the good sense of the Romans that, when they felt that they could not efficiently keep the two roots apart, they kept only one, *dare*, to give, and replaced the other *dare*, to place or to make, by different verbs, such as *ponere*, *facere*.' *quaeque* agrees with *primordia*: see n. to II 372.

42—109: that such films or images may be discharged from the surface of things, you may learn in many ways: smoke and heat are emitted in a state of solution; the coats of cicades, the slough of serpents in a state of cohesion: much more then may very thin films from their outermost surface leave things and keep their shape; just so colour is emitted, as you may see, when all things in a theatre take the hue of the awnings overhead: these images are so small as not to be visible separately; coming too from the very surface of things there is nothing to rend them: such images invisible singly, when often repeated may be seen reflected from the surface of mirrors. 42 *effigias*: this form is found below 85 and 105, and in Plautus and Afranius. 50 *cortex*: as he cannot use the plural, he somewhat harshly passes to the sing. *Quae quasi membranae* [sunt] *vel* cet. 52 *cluet vagari* = vagatur. 53 (44) repeated v 882. 54 55 *in rebus*, *res*: 43 and 64 *ab rebus*, *rerum*; 90 91 *res*, *e rebus*; 100 foll. *rerum*, *rerum*, *rerum*. 58 *Cum teretis* cet.: comp. v 803 *Folliculos ut nunc teretis aestate cicadae Lincunt*: for *teretis* see n. to I 35 *tereti cervice*. 63 *tenuis*, 66 *tenuia*, and repeatedly below this word has the same poetical force which he often gives to *solidus rarus celer profundus* and the like: it means enormously inconceivably thin and fine: so 88 *suptili filo*: comp. also n. to I 1018 *magnum per inane*. 66 *hiscendi*, of speaking in the lowest whisper: see Mayor Cic. phil. II 111 *respondebisne ad haec aut omnino hiscere audebis?* 69 *formai...figuram*; Cic. de nat. deor. I 90 *non ab hominibus formae figuram venisse ad deos*; but de off. I 126 *formam nostram reliquamque figuram*; de nat. deor. I 110 *formare figurare colorare*. 71 *et sunt* cet.: the negligence here is the same in principle as that illustrated in n. to II 1038: *quanto minus* connects them in construction; but the sense requires something opposite. 76 *ferrugina*: the various usages of *ferruginus ferrugineus* and *ferrugo* being compared, the colour denoted would seem to be a dark violet, like that of steel after it has been heated in the fire and cooled: Plaut. miles 1178 *Causiam habeas ferrugineam...Palliolum habeas ferrugineum, nam is colos thalassicust*; answering therefore to Homer's *πορφύρεος* or *οἶνοψ*

applied to the sea; as in certain weathers the mediterranean has precisely such a colour. *magnis intenta* cet.: VI 109 *Carbasus ut quondam magnis intenta theatris Dat crepitum malos inter iactata trabesque*: in the theatres at Orange and Pompeii may still be seen the two rows of stone sockets running along the outside of their walls on the top, into which the masts fitted that supported the *vela* or *carbasa*; the *trabes* I presume were cross-beams which passed from one *malus* to another to allow the awning to be unfurled more conveniently. Pompey's great theatre, the first permanent one built at Rome, appears to have been finished the year of Lucretius' death: but the temporary wooden ones of which he had experience were probably constructed on a similar plan. Q. Catulus is recorded to have first spread these awnings. 77 *flutant*: III 189 *flutat*. 79 *patrum* cet.: the senators occupying the whole orchestra must have been very marked objects: Aen. V 340 *Hic totum caveae consessum ingentis et ora Prima patrum magnis Salius clamoribus implet*: the last words seem a reminiscence of 1017 *magnis clamoribus omnia complent*. Tac. ann. XIII 54 *intravere Pompei theatrum quo magnitudinem populi viserent. illic...dum consessum caveae, discrimina ordinum, quis eques, ubi senatus percunctantur, advertere quosdam cultu externo in sedibus senatorum...degrediunturque et inter patres considunt.* 83 *conrident* seems not to occur elsewhere in a classical writer. *correpta*, being gathered up into a small space: V 1223 *Corripiunt divum percussi membra timore.* 86 *utraque*: 291 *Aeribus binis quoniam res confit utraque*, and VI 517. 87 *iam*, as now shewn. 88 *filo*: see n. to II 341. 98 [in] *speculis*: see n. to III 623. 101 *Extima* [simulacra] = orae imaginum: comp. 135 *Et cuiusque modi formarum vertere in oras*: they are mere surface with no depth, διὰ τὸ μὴ δεῖν κατὰ βάθος τὸ συμπλήρωμα γίνεσθαι, says Epic. in Diog. Laer. X 48 of the cognate συστάσεις: Cic. de nat. deor. I 123 of Epicurus' gods, *ut homunculi similem deum fingeret liniamentis dumtaxat extremis, non habitu solido*; and Macrob. sat. VII 14 4 calls them *inani figura*: Aen. VI 292 *tenuis sine corpore vitas Admoneat volitare cava sub imagine formas* will illustrate Lucr. 104 *rerum similesque*: see 79 and n. to II 1050. 105 *singillatim* cet.: Locke essay II 8 12 *since the extension figure number and motion of bodies of an observable bigness may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes* etc. 108 *Nec rat. al. servari*: he means that unless they were inconceivably thin they could not pass unscathed through certain obstacles, for instance the air; by number then they make up for fineness, so as at last to be visible, *adsiduo crebroque repulsu*.

110—128: learn now how fine these images are: and first let me remind you how exceedingly minute first-beginnings are: think of the

smallest animalcule, then of its heart or eye, then of the atoms which form its soul: what is their size? touch again a strong-scented herb with two fingers: what an amount of smell it emits? [what then must be the size of the atoms of smell? from all this you may conceive how thin these images or idols may be, and yet consist of material atoms:] such then fly about on all hands unseen unfelt. 110 *quam tenui*: in the words of Epic. in Diog. Laer. x 47 τὰ εἴδωλα ταῖς λεπτότησιν ἀνυπερβλήτοις κέχρηται. 112 *Sunt infra* cet.: see n. to II 138 and III 274 *Nec magis hac infra* cet. 114 *id quoque*, as well as the other point. *exor. rer. Cunct.*: see n. to II 333. 116 *quorum* = *ut eorum*: how greatly would the revelations of the microscope have strengthened his argument! 123 *Praeterea* with reference to *primum* of 116: in 120 *praeterea* merely connects its clause with those immediately preceding. 124 *panaces* is plur. from *panax*: the Greeks used the forms ἡ πανάκεια, τὸ πάνακες and ὁ πάναξ: Galen. de simpl. med. VIII 4 says εἴθισται οὐκ οἶδ' ὅπως ἤδη σχεδὸν ἅπασιν οὐ πάνακες ἀλλὰ πάνακα προσαγορεύειν τὴν πόαν ταύτην; and Lucr. is not likely to have used the masc. πανακής. 125 *Habrotoni*: Dioscor. III 26 says the Romans called this ἀψίνθιουμ Πόντικουμ. *centaurea*: see n. to II 401: both Virg. geor. IV 270 *Cecropiumque thymum et grave olentia centaurea*, and Lucan. IX 918 *Et panacea potens et Thessala centaurea...fumoque gravem serpentibus urunt Habrotanum* seem to have been thinking of Lucr. 126 *duobus* [digitis], for *digitis* doubtless followed, must have been proverbial: Plaut. Bacch. 675 *Quid...Sic hoc digitulis duobus sumebas primoribus?* 128 they have no force and therefore are *cassa sensu*, can one by one make no impression on any of the senses.

129—142: besides these images which come from things, there are others which form in the air of themselves and present the outlines of all kinds of shapes, giants mountains rocks beasts.—This passage, as Lach. has proved, is clearly a subsequent addition of the poet's, like several other passages, unconnected with the context; for 143 *Nunc ea* cet. directly refers to 128: for a possible explanation of the strange disorder of these vss. in the mss. see above p. 22. Lucr. refers to the συστάσεις or spontaneous appearances in the air, as a supplement to his discussion of the ἀπόρροιαι or images from the surface of things, not wishing to leave this question altogether untouched, because Epicurus had called attention to it, though it has not much bearing on his general argument: 735 he again refers to these, *passim simulacra feruntur, Partim sponte sua quae fiunt aere in ipso.* Diod. Sic. III 50 4 speaking of parts of the coast of Africa illustrates well what Epicurus and Lucr. meant: at certain seasons he says συστάσεις ὁρῶνται κατὰ τὸν ἀέρα παντοίων ζῴων ἰδέας ἐμφαίνουσαι· τούτων δ' αἱ μὲν ἠρεμοῦσιν, αἱ δὲ κίνησιν λαμβάνουσι, καὶ ποτὲ μὲν ὑποφεύγουσι ποτὲ δὲ διώκουσι κ.τ.λ. 132 *in*

hoc caelo means in this lower part of the heaven called air: Epic. in Diog. Laer. x 48 *καὶ συστάσεις ἐν τῷ περιέχοντι ὀξεῖαι διὰ τὸ μὴ δεῖν κατὰ βάθος τὸ συμπλήρωμα γίνεσθαι.* *qui*: see n. to III 94. 135 (142) *in oras*, that is the *extima pars*, the *extrema liniamenta*, as explained and illustrated to 101 *Extima*: comp. 166 *oris*, and Attius 484 *Scandit oras, laterum texta flamma Vulcani vorax.* 137 *mundi* = *caeli* of course. 138 (136) *Aera mulcentes*: Cic. Arat. 88 *Igniferum mulcens tremebundis aethera pinnis*; 184 *quam flatu permulcet spiritus Austri.* 138—142 such appearances seem to have tickled the fancies of the poets: the Socrates of the clouds saw *νεφέλην κενταύρῳ ὁμοίαν Ἢ παρδάλει ἢ λύκῳ ἢ ταύρῳ*; Shakespeare's Antony all the objects mentioned by Lucr. *a cloud that's dragonish, A vapour sometime like a bear or lion, A tower'd citadel, a pendant rock, A forked mountain or blue promontory With trees upon't*; while *that which is now a horse even with a thought The rack dislimbs*; his Hamlet *a camel, a weasel, very like a whale*, perhaps the very *belua* of Lucr.; Wordsworth *an Ararat, a lion, a crocodile.*

143—167: images stream incessantly from the surfaces of all things: some things they pass through, by others they are broken; from others, at once hard and bright, they are reflected back: they stream as constantly from things, as light from the sun, so that as soon as a mirror is turned to a thing, its image appears in it at once. 143 foll.: Epic. in Diog. Laer. x 48 *ἡ γένεσις τῶν εἰδώλων ἅμα νοήματι συμβαίνει· καὶ γὰρ ῥεῦσις ἀπὸ τῶν σωμάτων τοῦ ἐπιπολῆς συνεχὴς συμβαίνει...σώζουσα τὴν ἐπὶ τοῦ στερεμνίου θέσιν καὶ τάξιν τῶν ἀτόμων ἐπὶ πολὺν χρόνον κ.τ.λ.* and Macrob. sat. VII 14 3 *censet Epicurus ab omnibus corporibus iugi fluore quaepiam simulacra manare, nec umquam tantulam moram intervenire quin ultra ferantur inani figura cohaerentes corporum exuviae.* 145 *quicquid* = *quicque*, as so often in Lucr.: see n. to II 957. 147 and 152 *vitrum*: 602 *Qualia sunt vitrei, species qua travolat omnis.* 147 [in] *aspera*: see n. to III 623. 151 *Densaque*: mirrors in his time were chiefly of metal. 153 *quam*: the rel. has same force as in *qua est prudentia, quo animo traditur* and the like: it = therefore *ita meminit* cet. 160 *celer*: see n. to 63 *tenuis.* 166 *oris*: comp. 135 *in oras* and 101 *Extima.* 167 *res*, the images, which are *res* or real things in being, as much as the things from which they come: 160 *celer his rebus dicatur origo*; 235 *in luci quae poterit res Accidere ad speciem quadrata, nisi eius imago*; 690 *mitto iam dicere quam res Quae feriunt oculorum acies visumque lacessunt*; and also I 132 *Et quae res nobis vigilantibus obvia mentes Terrificet*: see n. there. *ibi* i.e in speculo. *respondent* i.e. *oris* of the thing from which the images come.

168—175: often the sky in a moment is overcast with thick clouds: what a multitude then of these thin images must in an instant be shed

from them, to allow of these being seen by us?—These vss. appear to me to have nothing to do with the *συστάσεις* of 129—142, with which Lach. connects them: the sense is somewhat obscure and briefly put; but they are a continuation of the argument immediately preceding, and illustrate *quam facili et celeri ratione* images are produced; for the clouded sky can only be seen by means of them, and each image forms an inexpressibly small part of the whole. 168 *caeli Tempestas.. fit turbida foede*: Virg. Aen. XII 283 *it toto turbida caelo Tempestas telorum*, geor. I 323 *Et foedam glomerant tempestatem.* 169 *Tempestas*: II 32 *Praesertim cum tempestas adridet*, and V 1395. 170—173 = VI 251—254, except 170 *rearis* for *reamur.* 171 *caeli.. cavernas*: 391 *Sidera cessare aetheriis adfixa cavernis*; as Cic. de suo consul. in de div. I 17 *Aetheris aeterni saepta atque inclusa cavernis.* Lamb. quotes Cic. Arat. 252 *late caeli lustrare cavernas*, and Varro in Nonius p. 46 *Nubes aquali frigido velo leves Caeli cavernas aureas subduxerant*: Varro de ling. Lat. V 19 *Ennius item ad cavationem* caeli ingentes fornices; so that doubtless his own *cavernas* had reference to this derivation of *caelum.* 172 *tae. nim. nocte*: Virg. geor. I 328 *media nimborum in nocte.* 173 *atrae* cet. Aen. XII 335 *circumque atrae formidinis ora.* 174 *Quorum quantula* cet. and therefore the images being so prodigiously thin, what a number must leave in order to impress our sense on earth. 175 *eam rat.*: the *ratio* is such that no sum can express it.

176—229: the velocity with which these images travel is enormous: light things made of fine atoms often travel very swiftly, as sunlight; it is natural then that these images should do the same; of which too there is a constant succession one following on the other like light or heat from the sun: again these images proceed from the very surface of things and should therefore travel more swiftly than light: a proof of the prodigious swiftness of these images is this: put water in the open air, and at once all the stars of heaven are reflected in it. As images come from all things to the sight, so do things producing smell taste sound and the like; so that all the senses are similarly moved. 179 *quem quaeque locum*; see n. to I 966 *quem quisque.* 180—182 = 909—911. 180 *Suavidicis* seems not to occur except in these two places: Plaut. capt. 56 has *spurcidici versus*; and Ter. Phorm. 213 *saevidicis dictis.* 181 182 clearly borrowed from Antipater of Sidon who was popular in Rome a generation before Lucr.: he says in praise of Erinna anthol. II p. 19 epigr. 47 7 *Λωΐτερος κύκνου μικρὸς θρόος ἠὲ κολοιῶν Κρωγμὸς ἐν εἰαριναῖς κιδνάμενος νεφέλαις*: the *gruum clamor in aetheriis* is probably from Homer's *κλαγγὴ γεράνων οὐρανόθι πρό*: Aen. X 264 *sub nubibus atris Strymoniae dant signa grues atque aethera tranant Cum sonitu fugiuntque notos clamore secundo*: the *aethera tranant* per-

haps from 177 *tranantibus auras* and 182 *in aetheriis.* 182 *in aether. nub.*: see n. to I 250 and II 1115. 184 *celeris*, as 160 *celer.* 186 *e primis*: see II 313 *Primorum.* 187 *cuduntur*: I 1044 *Cudere enim crebro possunt* [plagae]. 190 *protelo* explained to II 531. 192 *Inmemorabile per spatium* recurs VI 488: par. lost VIII 113 *distance inexpressible By numbers that have name*: and comp. Epicurus himself in Diog. Laer. X 46 *ἡ διὰ τοῦ κενοῦ φορὰ κατὰ μηδεμίαν ἀπάντησιν τῶν ἀντικοψάντων γινομένη πᾶν μῆκος περιληπτὸν ἐν ἀπερινοήτῳ χρόνῳ συντελεῖ.* 193 *parvola* i. e. simulacra, has force by being thus placed at the beginning instead of after *quae*: they are exceedingly small and therefore the propulsion is easier: the ambiguity in *parvola causa* was quite indifferent to Lucr.: see n. to I 57 *perempta* and to V 1414 *res illa reperta.* *causa*: the cause behind which impels them is the body from which they come which constantly emits from the surface images, as the sun discharges light; this therefore is to be compared with 189 *Suppeditatur* cet. 194 *prŏpellat*, as VI 1027 *Aer a tergo quasi provehat atque propellat*; which also illustrates the sense. 202 *rigare*: V 593 *Tantulus ille queat tantum sol mittere lumen, Quod maria ac terras omnis caelumque rigando Compleat et calido perfundat cuncta vapore*: the repetition of *caelum* in our vss. is harsh; but the *mare ac terras* made it almost inevitable, and such repetitions are in the manner of Lucr. and the old writers. 203 *igitur*: comp. 520 and 865, and see n. to I 419. 204 *emissum* is another *ἅπαξ λεγόμ.* 205 *Quod superest*: see n. to I 50. '*ubi ferantur* autem coniunctivum in membro ab interrogatione pendente locum habere quis neget?' Lach.: he compares III 507 VI 855: here, as there, *ubi* seems to have its usual causal force. 206 *Quone* I doubt not is what Lucr. wrote, but the constr. is involved, confused even, two clauses being run into one: what he meant is this I think, *quo*, i. e. quanto, *citius et longius* (*videsne?*) *debent ire!* with *quo* comp. 153 *quam meminit levor praestare salutem.* Lach. gives a curiously inappropriate illustration from Quintil. I 10 3 *aut quo melius vel defendet reum* cet. where *quo melius* has a force exactly contrary to *quo citius* here. 207 208 = II 163 164; and comp. what precedes, for *debent nimirum!* expresses what *quo* .. *debere!* does here.

211 *dīu*: with *diu* and *divo* comp. *fretu* and *freto* and n. to I 720, and *humu* and *humo* in Nonius p. 488. 213 the *sidera mundi* are the reflected stars of the reflected heaven which answer in the water to the real stars of the real heaven: 167 *Res ibi respondent simili forma atque colore*: see n. to 419. 215 *accidat in*: *accidere ad* is the usual constr. as 236: Wak. compares Ov. fasti V 360 *Accidere in mensas ut rosa missa solet.* 218 foll. are placed here to shew that it is natural the sense of sight should be affected only by images coming into contact with the eye, since all the other senses are likewise affected solely by

material objects; but certainly the parallel is introduced very abruptly: 217—229 recur VI 923—935 with very slight difference; they appear to have been written for VI, and brought hither by the poet, perhaps as a temporary makeshift: see notes 1. 220 *excesor* seems not to occur out of Lucr. *moerorum*: see n. to I 29 *moenera*: *moerorum* is found three times in the Aeneid joined with *agger*: Lucr. has also *noenu*, *poeniceus*, *poenibat*; Cic. pro Mil. 33 *poenitus*, 35 *poenitor*; the new corp. inscr. Lat. has *moiro moiros moerus* among a hundred other instances of *oi* or *oe* for *u*. 224 *amaror*: whether Virg. geor. II 247 used this word is a moot point: see Gellius I 21 and the editors of Virgil. 225 *fluenter* seems another ἅπαξ λεγόμ. 227 *interdatur*: 868 *interdatus*. 229 see notes 1: *sentire sonare* is by no means an unpoetical expression; and to object to the *sentire* in two consecutive vss. in two senses is strange in an editor of Lucr.: see n. to I 875. With reference to the above argument of Lucr. Macrobius sat. VII 14 5 says not unaptly *ad haec renidens Eustathius 'in propatulo est' inquit 'quod decepit Epicurum. a vero enim lapsus est aliorum quattuor sensuum secutus exemplum, quia in audiendo et gustando et odorando atque tangendo nihil e nobis emittimus, sed extrinsecus accipimus quod sensum sui moveat. quippe et vox ad aures ultro venit et aurae in nares influunt et palato ingeritur quod gignat saporem et corpori nostro adplicantur tactu sentienda. hinc putavit et ex oculis nihil foras proficisci, sed imagines rerum in oculos ultro meare.'*

230—267: we feel a thing in the dark, and know it to be the same as we saw in the light: if what we feel is square, what square object can come in the light to our sight except its image, since a like effect must have a like cause? images proceed from things in all directions; but as we only see with the eyes, we only see images where we turn our sight to them. Again an image pushes before it the air between it and the eye; this air all sweeps through the pupil, and lets us judge of the distance of the object seen; and all this takes places almost instantaneously: we do not see the images singly, but we see the object by a continuous succession of these; just as we do not feel each particle of wind, but the effect of the whole: and so too we thump the surface of a stone, but feel its inner hardness. 233 *Cons. causa*, since the effect is *consimilis*. 235 *luci*, 232 *luce*: comp. I 976 *fine*, 978 *fini*, 979 *fine*. 236 *ad speciem*, 242 *speciem*; as V 707 and 724 *Ad speciem* for the sight or eyes. 245 *internoscere curat* = of course *curat ut nos internoscamus*; *intern.* therefore is equivalent to an acc. of the subst.: comp. Lach. and see n. to I 331 and 418. 255 habit making the whole appear one and the same operation; just as in fact habit makes the seeing a solid object and the inference that it is solid appear but a single operation. 262 *unorsum*: Lach. compares *oinvorsei* in the

inscr. de bacchanal. 19, and *undecim unanimus unanimitas unoculus.* 266 *extremum, summum, penitus, in alto,* the same thing in different words to increase the force of the contrast: a very favourite artifice of his.

269—323 (347): the image is seen not at the surface of the mirror, but beyond and within it in the same way that real objects are seen through and beyond an open door, namely by two airs: it was explained above 246 foll. how the distance of an object from the eye was perceived by means of the air between it and the eye; thus you see first the distance of the open doorway by one air, then comes another air between the doorway and the object outside, which lets you see how far it is beyond the door: thus too the mirror and its distance from us is seen by means of its image which propels before it the air between the mirror and the eye, which first sees this air, then the mirror; then when we have perceived the latter, the image which goes from us to it, comes back to us, but drives onward an air which is seen before the image, and makes it appear so far distant beyond the mirror. Again our image in the mirror has the right answering to our left, the left to our right, because on coming against the mirror it is dashed straight out in the reverse direction, like a wet plaster-mask thrown against a post. Again a series of mirrors disposed in a certain way can bring into view all the recesses and turnings of a building. Again concave mirrors shew our image with right answering to right, left to left. Again the images stop and move as we do, because when you withdraw from any part of the mirror, images cannot come from that part of the mirror. 271 *Quod genus*: see n. to II 194. *vere*: to me it appears marvellous that Lach. should say '*vere* non modo supervacaneum est, sed caret sensu': it clearly refers to the real objects seen by images coming from them directly in contrast to the mere reflexions from a mirror, of yourself for instance: 258 *res ipsae perspiciantur.* 271 and 278 *transpiciuntur,* 272 *transpectum* occur in no other writer of authority. 274 *duplici geminoque* appears a pure tautology: 451 *Binaque per totas aedis geminare supellex*; 766 *mortis letique potitum*; 1004 *facies atque ora tuantur*; v 5 *Pectore parta suo quaesitaque praemia*; 1025 *bona magnaque pars*; 1085 *aquam dicuntur et imbris Poscere*; 1078 *genus alituum variaeque volucres.* 277 *perterget*: 249 *Et quasi perterget pupillas* and 252 *Et nostros oculos perterget longior aura*: comp. the whole argument there. 278 *et illa*: and then those things by means of the images streaming from them incessantly. 280 *protrudit* cet.: comp. the quite similar argument 246 foll. 290 *Illic* i. e. ab speculo tantum semota. 291 *utraque* i. e. both in the case of things seen through the open door and in a mirror: see n. to 86. Lucr. seems to have thoroughly felt that distance was not perceived by the eye, but was a

matter of mere inference. 301 (325) *e laevo sit* i.e. laevus fiat: I 186 *fierent iuvenes subito ex infantibu' parvis*; Ter. Andr. 37 *feci ex servo ut esses libertus mihi*; Aen. X 221 *nymphasque e navibus esse Iusserat*: it is possible *e laevo* may mean on the left: Ovid. trist. I 10 17 *Fleximus in laevum cursus*; Lucan VIII 194 *in laevum puppim dedit.* 308 (332) *speculo*: the omission of the prep. seems harsh; and perhaps *e* should be read: but *speculo* may be the abl. instrum. 309 (333) *rusum*: see n. to III 45. 310 (334) *eodem eădem eaedem idem* plur. and *isdem*, as said to I 306, are found as dissyll. in Lucr.: the last three are never with him trisyll.

311 (335) *quaecumque spec.*: 1005 *quo quaeque magis sunt aspera seminiorum* the use of the gen. seems parallel: II 16 he has the sing. *hoc aevi quodcumquest* and Cicero *quodcumque militum.* 313 (337) *Dextera sim.* i.e. images turned as a man would be if looking at himself, right answering to right, left to left; whereas, as he has just explained, the image from a flat mirror is exactly inverted, right answering to left, left to right. *ea propter* i.e. propterea: see n. to 28. 315 (339) *elisa bis*, just as if the plaster-mask were first struck out as described above, and then were struck back by a second process to its original direction. 316 (340) *Circum agitur*: not struck out at all, but only twirled round so as to be turned like a man looking at himself. 317 (341) *docet*: he gives the mirror ἐνέργεια, as 153 *quam meminit levor praestare salutem.* *ad nos* i.e. ita ut nos sumus: comp. *ad normam istorum, ad effigiem, ad simulacrum*; II 378 *neque facta manu sunt Unius ad certam formam primordia rerum*; Livy I 19 6 *ad cursus lunae in duodecim menses describit annum.* The phenomenon described by Lucr. in these last verses is quite true and simple, whatever be said of his explanations of it, on which indeed he seems not himself to lay much stress. Editors are strangely at sea about a very easy matter. From seeing my image turned upside down in the bowl of a silver spoon I hastily concluded, as I find Gassendi has done, that a concave mirror always gave an image thus inverted. A distinguished mathematical friend has however proved to me both by optical and ocular demonstration that this inversion is caused by the vertical, not in the least by the lateral curvature. A mirror, laterally concave, such as I have before me this very moment, gives back your image turned as Lucr. asserts, i.e. facing you just as if you were facing yourself, right answering to right, left to left. Probably the Romans had metal mirrors of this shape for the purpose of getting such an image; the other side being convex, so as to suggest to Lucr. his comparison 'lateris nostri'. 323 (347) *ad aequos flexus*: very probably he refers to the angle of reflexion being equal to the angle of incidence.

324 (299)—378: this theory of images will explain many other

things: you cannot gaze on the sun, because of the force with which images come from it, and the seeds of fire mixed in them: the jaundiced see all things of a greenish yellow, because of the atoms of this colour which proceed from them and meet the images: we see out of the dark things in the light, because a bright clear air, advancing before the images of things in the light purges the eye of the gross air of darkness, the former air being much more minute and penetrating than the latter: we cannot see what is in the dark, because the gross air comes behind the bright and blocks up the sight against all images: a square tower from a distance looks round, because the images are blunted in their long journey through the air: our shadow seems to follow us and move as we do, because it is really nothing but air without light; one part of the earth after another being shaded from the sun as we advance, and the parts before covered by us left exposed as we leave them. 324 (299) *tueri* appears to be governed by *fugitant* as well as *vitant*: he has elsewhere *fugitant relinquere, fugitabant visere.* 325 (300) *tendere* i.e. oculos: Virgil has *Ad caelum tendens lumina, oculos telumque tetendit*; Ovid *oculos et bracchia tendens*: I 66 Nonius Lamb. and Lach. read *tendere.. oculos. pergas* is of course potential. 326 (301) *alte*, which generally means 'on high' or 'to a height' or 'depth', seems here to mean 'from on high'; so 1182 *alte sumpta querella*, 'from the depth': see n. to I 85 *super*, and what is there said of *superne.* 332 (307) *Lurida*, 333 (308) *luroris*: Paulus Fest. p. 120 *luridi supra modum pallidi*, which seems true of paleness on a dark complexion; so Catul. LXIV 100 *magis fulgore* [*fulvore* Ritschl] *expalluit auri*: Appul. met. IX 30 p. 650, with whom *luror* is a favourite word, *lurore buxeo macieque foedata.* 333 (308) *Arquati*: Nonius p. 35 *arquatus morbus dictus, qui regius dicitur, quod arcus sit concolor de virore vel... Varro Eumenidibus* nam ut arquatis et lutea quae non sunt et quae sunt lutea videntur: VI 526 Lucr. has the form *arqui.* 336 (311) *palloribus*: III 154 *Sudoresque.* 339 (314) *init*: see n. to III 1042. 340 (315) *candens lucidus*: II 767 *canos candenti marmore fluctus*; 771 *candens videatur et album*; V 721 *candenti lumine tinctus.* 341 (316) *discutit umbras* is in Virg. geor. III 357. 342 *multis part.*: see n. to I 735. 361 *quasi ad tornum terantur*: Virg. geor. II 444 *Hinc radios trivere rotis*, which Servius explains *tornavere, composuere de torno*: Forc. cites also Pliny nat. hist. XXXVI 193 *aliud* [vitrum] *torno teritur*: comp. Petron. frag. 29, who seems at once to imitate and contradict Lucr., *Fallunt nos oculi vagique sensus Oppressa ratione mentiuntur. Nam turris, prope quae quadrata surgit, Detritis procul angulis rotatur*; for see 379 *Nec tamen hic oculos falli* cet.; and indeed Lucr. may have written *rotentur. ad tornum* is like *ad normam esse, ad unguem factus, castigatus* and the like: see also note to 317 (341) *ad nos.* 363 *adumbratim* seems not

to occur elsewhere: Cicero says *non expressa signa sed adumbrata virtutum*. *simulata*: see n. to I 687. Sextus adv. math. VII 208 *οὐκ ἂν εἴποιμι ψεύδεσθαι τὴν ὄψιν, ὅτι ἐκ μακροῦ μὲν διαστήματος μικρὸν ὁρᾷ τὸν πύργον καὶ στρογγύλον ἐκ δὲ τοῦ σύνεγγυς μείζονα καὶ τετράγωνον, ἀλλὰ μᾶλλον ἀληθεύειν, ὅτι καὶ ὅτε φαίνεται μικρὸν αὐτῇ τὸ αἰσθητὸν καὶ τοιουτόσχημον, ὄντως ἐστὶ μικρὸν καὶ τοιουτόσχημον, τῇ διὰ τοῦ ἀέρος φορᾷ ἀποθραυομένων τῶν κατὰ τὰ εἴδωλα περάτων κ.τ.λ.* 366 *si credis* implies an absurdity: I 1057 *Ipsum si quicquam posse in se sistere credis*; where see note. 368 *lumine cassus*: 377 *spoliatur lumine terra*, V 719 and 757 *cassum lumine corpus*: Aen. II 85 *cassum lumine*, XII 935 *corpus spoliatum lumine*, the sense being quite different: see n. to I 253. 374 *e regione* i.e. recta linea: comp. VI 344 *E regione locum quasi in unum cuncta ferantur*; and other passages of Lucr. and Cicero there cited. 376 *lana trah.*: fresh wool at the same time constantly taking the place of what is consumed. 378 *abluit umbras*: 875 *sitis de corpore nostro Abluitur*, an equally expressive metaphor.

379—468: in all this the eyes are not deceived; what they see, they rightly see; it is the mind that errs in the inferences it draws: this applies to thousands of things in which the senses seem to be mistaken: when we are in a ship which is moving, it seems to be at rest, and things which it passes to be in motion: the stars which are in perpetual movement, appear to stand still: if you look down a long colonnade, the roof and floor and the sides seem at the other end to converge to a point: out at sea the sun appears to rise from the water and to set in it: the parts of a ship under water look bent and twisted upwards: when clouds scud across the sky, the stars seem to move the other way: if you press the eyeball beneath, you see all things double: when fast asleep in a small room in the dark, you often think you see daylight and are travelling over wide distances: in all this the error lies in the opinions which the mind superinduces upon what the senses really perceive. 383 *diximus* in 368 foll. 385 *naturam rerum* here = caussas rerum. 386 *vit. oc. adfingere*: Cic. de imp. Cn. Pomp. 10 *ut neque vera laus ei detracta oratione mea neque falsa adficta esse videatur*. 387 *Qua veh. navi*: see n. to I 15 *capta.. quamque*. 391 *cavernis*: see n. to 171. 392 *adsiduo sunt motu*: elsewhere he uses the more common constr. *esse in motu*: see n. to I 999 (995). *motu esse* without the adj. could hardly be said; but *adsiduo* implies the state or condition of the motion; and Madvig Lat. gram. 272, 2 teaches that both *eodem statu* and *in eodem statu esse, manere* may be said. 393 *longos* = longinquos: Servius to Aen. XI 544, quoted by Forc., 'Sallustius *et Metello procul agente longa spes auxiliorum*.' 394 *suo.. corpore claro*: I 38 *tuo recubantem corpore sancto*: 413 *meo diti de pectore*; VI 618 *suis radiis ardentibus*: the usage is archaic; as Ennius ann. 52 *aegro cum*

corde meo, 55 *Teque, pater Tiberine, tuo cum flumine sancto*: Virg. follows with *suo tristi cum corde, tuo perfusi flumine sacro, suo cum gurgite flavo.* 397 the constr. seems to resemble some of the instances given in n. to I 15: the *Extantis...montis* is joined by attraction with *inter quos* because it is nearest: if the *inter quos* preceded the *montis* there would be nothing harsh or unusual in the constr.; but the *Extantis* cet. is put first to give it emphasis. 404 *iubar* i.e. solis: V 697 *tremulum iubar haesitat ignis.* 409 Festus p. 375 *veruta pila dicuntur quod.. habeant praefixa* [Paulus supplies *quod veluti verua habent praefixa*] *Ennius li.* x cursus quingentos saepe veruti. Virgil and Tibullus have the form *veru*, and Virg. the adj. *verutus.*

414 *At conlectus*, 436 *At maris*, 447 *At si*: *at* here = denique; as also 998 *At consueta*, 1007 *At varias*; 1165, 1168, V 650, 1028, 1361, 1379, 1436: this use of *at* in transitions is common enough in Cicero: see Mayor's ed. of Halm phil. II 7. *conlectus aquae*: III 198 *lapidum conlectum*: Forc. and Lach. cite for the word Frontinus *si collectus pluvialis aquae* cet. *digitum non altior unum*: Madvig Lat. gram. 305 and 306 illustrates at length this omission of *quam*: very similar is Livy XXI 61 10, which he quotes, *raro umquam nix minus quattuor pedes alta iacuit*; but the law is usually restricted to *plus minus amplius maior minor*: Virg. ecl. III 105 *Tris pateat caeli spatium non amplius ulnas.* 416 417 Il. Θ 16 and Hes. theog. 720 had made this notion familiar to poets, though perhaps Virg. geor. II 291 and Aen. VI 577 was also thinking of Lucr., *despectum.. patet* suggesting *patet.. suspectus.* 416 *inpete* here is simply size, which seems to be derived from the primary meaning of force and vehemence: so V 200 *quantum caeli tegit impetus ingens*, for there seems no allusion there to a revolving heaven; and VI 186 *Extructis aliis alias super impete miro*: V 913 *tanto membrorum esse impete natum* seems to express both force and size: Caes. de bel. Gall. III 8 *in magno impetu maris atque aperto*, compared with 9 7 *in vastissimo atque apertissimo oceano* and 12 5 *vasto atque aperto mari*, extent seems to be the chief notion expressed. 417 *caeli.. hiatus*, perhaps with reference to Ennius' *caeli palatum* after the Greek. 419 *mirando*, because it is wondrous strange that heaven should be there in that small puddle: 462 *Cetera de genere hoc mirando*; VI 692 *mirando pondere saxa*; V 1171 *mirando corporis auctu.* See notes 1, and notes 1 and 2 to IV 213. Shelley in the recollection beautifully enlarges on this theme which would naturally impress itself on the mind of a poet: *We paused beside the pools that lie Under the forest bough: Each seemed as twere a little sky Gulfed in a world below; A firmament of purple light, Which in the dark earth lay...In which the lovely forests grew, As in the upper air...There lay the glade and neighbouring lawn, And through the dark green wood The white sun twinkling*

like the dawn Out of a speckled cloud. 426 *ductu*: so *ducere murum, fossam, lineam* and the like: Cic. de rep. II 11 *cuius is est tractus ductusque muri*; Manil. II 287 *at quas divisa quaternis Partibus aequali laterum sunt condita ductu*; 274 *In tris aequalis discurrit linea ductus.* 427 *in perpetuum*: Plaut. most. 146 *non videor mihi Sarcire posse aedis meas quin totas perpetuae ruant*: Creech compares Aen. VII 176 *Perpetuis soliti patres considere mensis*: VIII 183 Virgil translates by *Perpetui tergo bovis* Homer's νώτοισι διηνεκέεσσι. 429 *trahit fastigia*, poetically making the colonnade the agent; instead of *trahitur in fastigia.* 436 *clauda*: Livy XXXVII 24 6 has *claudas mutilatasque naves*; but here perhaps *clauda* is rather the reverse of *recta*, as *claudicat* in 515 *libella si.. claudicat hilum*, VI 1107 *qua mundi claudicat axis.* 437 *aplustris*: see n. to II 555. 438 *rorem salis*: Virg. geor. IV 431 *rorem amarum*, Aen. I 35 *spumas salis*, X 214 *campos salis*: see also n. to I 496. 450 *florentia*: I 900 *flammai fulserunt flore coorto.* Aen. VII 804 *florentis aere catervas*, where Servius says *Ennius et Lucretius* florens *dicunt omne quod nitidum est*: he then quotes inaccurately V 1442 *florebat puppibus.* 451 *binaque.. geminare*: 274 *duplici geminoque fit aere. geminare* neut. as the compound *ingemino* so often is. 453 *sopore Somnus*: III 431 *in somnis sopiti.* 459 *Mutare*, ἀμείβειν: Sen. epist. 104 8 *quid prodest mare traicere et urbes mutare?* Pliny nat. hist. II 132 *locum ex loco mutans rapida vertigine.* 460 *severa*: V 1190 *noctis signa severa*: the epithet seems to belong to the notion of night; not unlike is V 35 *Atlanteum litus pelageque severa*: it appears to be the opposite to what is gay and smiling. 462 *mirando*: see n. to 419.

463 *violare fidem* usually means to break your own faith; here it means to impair the credit of others: but 505 *Et violare fidem primam et convellere tota Fundamenta*, the sense is much the same as here: I 694 *Et labefactat eos* [sensus] *unde omnia credita pendent.* 465 *opinatus* seems a ἅπαξ λεγόμ. for *opinatio*: with *opinatus animi quos addimus ipsi*, and 467 *res secernere apertas Ab dubiis, animus quas ab se protinus addit* comp. Epic. himself in Diog. Laer. X 50 τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον ἐν τῷ προσδοξαζομένῳ ἀεί ἐστι κατὰ τὴν κίνησιν ἐν ἡμῖν αὐτοῖς, συνημμένην τῇ φανταστικῇ ἐπιβολῇ, διάλειψιν [not διάληψιν] δ' ἔχουσαν καθ' ἣν τὸ ψεῦδος γίνεται: and comp. all that follows with Sextus adv. math. VII 210 foll.: Epicurus shews that every perception is true; but that some opinions are true, some false, and points out how the true are to be distinguished from the false: Cic. acad. pr. II 45 *dixitque* [Epicurus] *sapientis esse opinionem a perspicuitate seiungere*: *perspicuitas* is his translation of Epicurus' ἐνάργεια. With respect to one of the cases put by Lucr. above Cic. l. l. 80 says *Timagoras epicureus negat sibi umquam, cum oculum torsisset, duas ex lucerna flammulas esse visas*; *opinionis enim esse mendacium, non oculorum.* It appears from this book of

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Cicero that the ship of 387 foll. and the bent oar of 438 were also stock illustrations in the schools: Macrob. sat. VII 14 enumerates others as well as these. 468 *ab se* = ipse: 465 *addimus ipsi*: nearly the same is its force III 271 *initum motus ab se quae dividit ollis*; Plaut. miles 940 *dat nunc ab se mulier operam*; and *a se fecit* in an inscr. Zell. epigr. 1011.

469—521: if a man teaches that nothing can be known, how does he know that? how distinguish between knowing and not knowing? on the truth of the senses all reasoning depends, which must be false if they are false: nor is one sense more certain than another; all being equally true; nor is the same sense at one time more certain than at another: all reasoning, nay life itself would at once come to an end, if the senses are not to be trusted: as in any building, if the rule and square are wry, every part will be crooked and unstable, so all reasoning must be false, if the senses on which it is grounded are false. 469 *nil sciri* cet. alludes no doubt to the academical philosophy which as said in Cic. acad. pr. II 61 *confundit vera cum falsis, spoliat nos iudicio, privat adprobatione, omnibus orbat sensibus*: comp. too Macrob. sat. VII 14 20 where the preceding illustrations of Lucr. are alluded to, *quae academicis damnandorum sensuum occasionem dederunt*. But in Cic. l. l. 75 it is also said of Chrysippus *qui fulcire putatur porticum stoicorum, quam multa ille contra sensus* cet. so that Lucr. may well be alluding to his paradoxes. *id quoque nescit* cet.: Metrodorus of Chios a great admirer of Democritus pushed the paradox to this extreme: Cic. l. l. 73 says of him *initio libri qui est de natura 'nego' inquit 'scire nos sciamusne aliquid an nihil sciamus, ne id ipsum quidem, nescire aut scire, scire nos, nec omnino sitne aliquid an nihil sit'*: the original is quoted by Sextus and Eusebius. 471 *mittam* = omittam: III 961 *mitte*, VI 1056 *mirari mitte*. *contendere causam* is not easy to explain; it appears to have nothing to do with the technical *intendere litem* of III 950: Lamb. compares Cic. in Catil. II 25 *causas ipsas, quae inter se confligunt, contendere*; but there *contendere* is simply to compare together, as in pro Sex. Rosc. 93: a sense quite unsuitable here: Gronov. obs. III 19 compares it with *cernere vitam, cernere bellum, pugnare pugnam* and the like; and this is probably right: it will therefore = contendere et agere causam. *causans* for *causam* would be an easy emendation. 472 *Qui capite* cet. appears to be a proverb; but its precise force is not very clear: Gronov. l. l. explains it by 'qui sibi non constat, qui se ipse evertit, qui cernuat': this would suit the context; but a man who tumbles on his head, does not place his head where his feet were. Perhaps by a man putting his head where his feet should be is meant that he assumes as his premiss that nothing can be known, which is the conclusion that ought to be, but cannot be proved by such a premiss: the

man thus inverts himself in a manner. Locke essay IV 11 3 uses very similar language, *I think nobody can in earnest be so sceptical as to be uncertain of the existence of those things which he sees and feels. At least he that can doubt so far, whatever he may have with his own thoughts, will never have any controversy with me; since he can never be sure I say anything contrary to his opinion*, and 8 *if all be a dream, then he doth but dream that he makes the question; and so it is not much matter that a waking man should answer him.*

478 *Invenies*: whatever he may say, you will find that no other real answer can be given, except that all truth depends first on the senses. *primis*: comp. II 1080 and III 250. 484 *quae tota* cet.: I 694 *unde omnia credita pendent.* 493 *coniuncta*: I 449 *aut his coniuncta duabus Rebus ea invenies*; and see n. there. 497 *ipsi repr. sese* i. e. the same sense at one time cannot refute the same sense at another: Cic. acad. pr. II 79 *eo enim rem demittit Epicurus, si unus sensus semel in vita mentitus sit, nulli umquam esse credendum*; and with all that precedes comp. the very similar reasoning of Epic. himself in Diog. Laer. X 31 πᾶσα γὰρ αἴσθησις ἄλογός ἐστι καὶ μνήμης οὐδεμιᾶς δεκτική· οὔτε γὰρ ὑφ' αὑτῆς οὔθ' ὑφ' ἑτέρου κινηθεῖσα δύναταί τι προσθεῖναι ἢ ἀφελεῖν. οὐδ' ἔστι τὸ δυνάμενον αὐτὰς διελέγξαι. οὔτε γὰρ ἡ ὁμοιογενὴς αἴσθησις τὴν ὁμοιογενῆ διὰ τὴν ἰσοσθένειαν, οὔθ' ἡ ἀνομοιογενὴς τὴν ἀνομοιογενῆ· οὐ γὰρ τῶν αὐτῶν εἰσὶ κριτικαί. οὔθ' ἡ ἑτέρα τὴν ἑτέραν· πάσαις γὰρ προσέχομεν. οὔτε μὴν λόγος· πᾶς γὰρ λόγος ἀπὸ τῶν αἰσθήσεων ἤρτηται. 500 *dissolvere* is a technical term often used by Cicero and Quintilian; and means to explain away an objection and prove it not to be to the point. 502 *rat. eg.*: *rationis egentes* occurs in Ovid met. XV 150 amid many other imitations of Lucretian language. 504 *manibus manifesta*: these words are of course connected in origin; and the antithesis between *manifesta* and *manibus emittere* is doubtless intentional. 505 *viol. fid.*: see n. to 463. 507 *Non modo..., vita quoque ipsa*: the omission of the adversative particle in the second clause is rare in good writers: Tacitus has *non modo, etiam* more than once, and hist. II 27 *nec solum apud Caecinam.., Fabii quoque Valentis copiae*: Livy XXVIII 39 11 *ita bello afflixit ut non modo nobis, absit verbo invidia, ne posteris quidem timenda nostris esset*, Madvig inserts from conjecture *sed* after *nobis.* 508 *nisi credere* cet.: Locke essay IV 11 8 *such an assurance of the existence of things without us is sufficient to direct us in the attaining the good and avoiding the evil which is caused by them* etc. 515 *libella* 'consists of two sides joined at the top by a cross bar, over which a line and plummet descend as a pendulum' Rich's companion. *claudicat*: see n. to 436. 517 the rhythm of this v. was perhaps suggested by Il. Ψ 116 Πολλὰ δ' ἄναντα κάταντα πάραντά τε δόχμιά τ' ἦλθον, on which Demetrius Phal. cited by Clarke remarks μεμίμηται τῇ κακο-

φωνίᾳ τὴν ἀνωμαλίαν. 518 *quaedam vid. velle, ruantque* i. e. ut alia videantur velle ruere, alia autem ruant, prodita et haec et illa cet.: comp. 652 *Esse minora igitur quaedam maioraque debent.* 520 *igitur* beginning an apodosis: see n. to I 419. *ratio* cet. πᾶς γὰρ λόγος ἀπὸ τῶν αἰσθήσεων ἤρτηται, says Epic. in Diog. Laer. X 32.

522—548: the way in which the other senses are acted upon, may now be easily understood: sound is corporeal, since it is by striking on the ear that it excites sensation: often too the atoms of sound in passing through the narrow windpipe graze it and make it rough: again a long speech spoken in a loud voice takes much strength and substance from a man: smoothness of sound comes from smoothness of its atoms, roughness from roughness in them. 522 *quo pacto*, 'that is manifestly by impulse, the only way which we can conceive bodies operate in' says Locke essay II 8 11: what follows has many points of singular agreement with what Lucr. says here and in parts of II. 523 *scruposa*: the metaphor is obvious, though the word does not appear to occur elsewhere in this sense; and the form *scrupeus* has also this meaning, but only in late writers. 524 *auditur* cet.: so Epic. in Diog. Laer. X 52 τὸ ἀκούειν γίνεται ῥεύματός τινος φερομένου ἀπὸ τοῦ φωνοῦντος ἢ ἠχοῦντος ἢ ψοφοῦντος ἢ ὅπως δήποτ' ἀκουστικὸν πάθος παρασκευάζοντος. τὸ δὲ ῥεῦμα τοῦτο εἰς ὁμοιομερεῖς ὄγκους διασπείρεται κ.τ.λ. 525 *pepulere.. sensum*: Cic. de nat. deor. II 144 *priusquam sensus ab his* [vocibus] *pulsus esset.* 529 *arteria*: this neut. form appears to occur only here. *asperiora*, perhaps with reference to its technical name the *aspera arteria*, τραχεῖα ἀρτηρία: see Cicero and Celsus in Forc. 532 *quoque* belongs equally to the three words *expleti ianua oris*; as in *Illud in his quoque te rebus*, *quoque* belongs equally to the whole phrase *illud in his rebus*; for the meaning is *os quoque expletur et eius ianua raditur.* *expleti*, VI 1203 *sanguis expletis naribus ibat*: the word in these two places has doubtless its usual meaning, though Lach. says the sense which Donatus and Ennius give it of *exinanitus* would be appropriate here. 545 *sub murmure*: comp. 785 *Omnia sub verbone creat natura*, and n. there: the force of *sub* seems to be similar in Hor. od. III 7 30 *Sub cantu querulae despice tibiae*, and Celsus V 26 31 *sub frigido sudore moriuntur.* *mugit*: Aen. VIII 526 *Tyrrhenusque tubae mugire.. clangor.* 546 *cita* i. e. sonitu: 608 *sonituque cientur* [loca]. 547 whoever has travelled over Helicon and seen and heard its rushing torrents, will feel the fitness of making them the haunts of swans; and he who has not visited the place, might well believe that they would come to sing their dirge after having, in the words of Helicon's own poet, λοεσσάμεναι τέρενα χρόα Περμησσοῖο Ἢ Ἵππου κρήνης ἢ Ὀλμειοῦ ζαθέοιο.

549—594: as the sounds are coming out, the tongue forms them into articulate words; every one of which is distinctly heard near at

hand; but at a greater distance the sound is indistinctly perceived, as it gets broken in passing through the air: again a single word often strikes the ears of a whole multitude; it must divide therefore into so many distinct words: often too voices are echoed distinctly back, sometimes six or seven in answer to one: these the wonder-loving multitude believes to be the voices and music of nymphs and woodland gods, Pan and the rest. 551 *articulat*: Plat. Protag. 322 A *φωνὴν καὶ ὀνόματα ταχὺ διηρθρώσατο τῇ τέχνῃ*: lexicons cite for the Latin word only late authorities besides Lucr.: Cic. de nat. deor. II 149 quoted by Lamb. *in ore sita lingua est, finita dentibus. ea vocem immoderate profusam fingit et terminat atque sonos vocis distinctos et pressos efficit.* *verborum daedala*: it governs a gen. also V 234 *naturaque daedala rerum*: comp. too n. to I 7. 552 *Formatura*, 556 *formaturam*: see n. to I 653. 553 *una pr. Per. v. quaeque*: V 990 *Unus enim tum quisque.* 556 *Servat* cet.: Epic. l. l. *τὸ δὲ ῥεῦμα τοῦτο εἰς ὁμοιομερεῖς ὄγκους διασπείρεται, ἅμα τινὰ διασώζοντας συμπάθειαν πρὸς ἀλλήλους καὶ ἑνότητα ἰδιότροπον.* *formaturam* and *figuram* must surely be synon. here. 560 *illam...ver. sen. quae sit*: see n. to I 15. 567 *Obsignans* seems to mean impressing on the ears the form of the word, as the seal impresses its mark on the wax. 568 *auris incidit*, a rare construction: Tac. hist. III 29 *obruitque quos inciderat*; Paulus quoted by Lach. has the accus. and Appul. more than once: Aen. IX 721 *animos deus incidit* M, but most mss. *animo*: in Livy there appears to be no ms. authority for the accus.: I 326 *mare quae inpendent*, where see note; and so *insinuare latebras* and the like: Nonius p. 502 seems to assign to Lucilius *gladium incumbere.* 572 *possis* is here potential: see n. to I 327. 575 *opacos* seems to mean here enveloped in darkness; as Aen. III 508 *Sol ruit interea et montes umbrantur opaci*; though it may only mean that they are lost in the woods on the hills. 576 *Quaerimus et* cet.: Aen. III 68 *Condimus et magna supremum voce ciemus*: this might be added to n. to I 253. 578 *ipsi* seems to be in their turn, with reference to *Unam cum iaceres.* 579 *docta referri*: Lach. compares Hor. epist. I 14 30 *Multa mole docendus aprico parcere campo.* 580 *Haec loca* cet.: Milton par. reg. II 296 *to a superstitious eye the haunt Of wood-gods and wood-nymphs*; Aen. VIII 314 *Haec nemora indigenae fauni nymphaeque tenebant.* 581 *faunos*: these old Italian, nay peculiarly Latin gods he joins with Greek satyrs and nymphs and Pan, as Virg. l. l. and geor. I 10 *faunique...dryadesque*; to which v. Probus says *rusticis persuasum est incolentibus eam partem Italiae quae suburbana est saepe eos* [faunos] *in agris conspici*; and Varro tells us it was in the saturnian metre they spoke *in silvestribus locis*; as does Ennius ann. 222 *Versibus quos olim fauni vatesque canebant*: but he goes on *Cum neque musarum scopulos quisquam superarat* cet. and surely in the

days of Lucr. the muses with Pan satyrs and nymphs had silenced the fauns with their saturnian measure. *esse locuntur*, not a common constr. but occurring in Virg. ecl. v 27, Aen. I 731. 583 *taciturna silentia* is found in Ovid ars II 505; and *muta silentia* occurs thrice in his met.: Aen. II 255 *tacitae per amica silentia lunae.* 585 *Tibia*: Rich in his companion gives a drawing of a simple pipe or flageolet from the statue of a faun, exactly resembling that now used by the Roman *pifferari*, to whom it has doubtless come down in uninterrupted succession from antiquity. 587 *capitis velamina*: I 930 and IV 5 *Unde prius nulli velarint tempora musae.* 588 *Unco* cet.: V 1407 *Et supera calamos unco percurrere labro*; Prop. III (IV) 17 34 *Capripedes calamo Panes hiante canent.* 589 *silvestrem...musam* is in Virg. ecl. I 2. 594 *avid. auric.* must mean *avet captare auriculas alienas*: Pers. I 22 *Tun, vetule, auriculis alienis colligis escas.*

595—614: sounds will come through places, through which you cannot see, because their particles can pass by crooked ways, while images can only travel through straight passages: again one voice bursts into many similar voices, as a spark of fire into many sparks; so that all the corners of a building may be filled with sound; but even sound is deadened and broken in coming through such obstructions. 598 *Conloquium* cet.: there is in this a mixture of seeing and hearing, exactly as in Hor. sat. II 8 77 *tum in lecto quoque videres Stridere secreta divisos aure susurros*: quite as harsh or harsher is 262 *fierique perinde videmus Corpore tum plagas in nostro*; Aen. IV 490 *mugire videbis Sub pedibus terram*; Prop. II (III) 16 49 *Vidistis toto sonitus percurrere caelo.* 600 *renutant* seems to occur in no other writer of authority. 602 *vitrei*: see n. to III 97: probably its confusion with the adjective has saved the *ei* here. 605 *Dissuluit*: see n. to III 1031 *lucunas.* 608 *fervunt*: for form and meaning see n. to II 41. *cientur*: 546 *regio cita.* 609 *derectis* = directis: see n. to VI 823 *derigit.* 611 *at* cet. i.e. nemo non potest, understood from *nemo* in 610: see n. to II 1038.

615—632: taste is quite as easy to explain; the flavour is pressed out from food by chewing and passes into the pores of tongue and palate: the flavour is pleasant, if its atoms are smooth, but the contrary, if these are rough: when the food has got below the palate, the flavour is no longer perceived, and the food is then indifferent, if only it can be digested. 619 *coëpit*: neither Ritschl pref. to trinummus p. LXXVI nor Lach. can find another certain example of this trisyll. use; but the latter says of the former 'quod hanc formam rationem habere negat, mihi non persuadet; nam ab *apiendo* ut fit *copula*, ita *coïpere coëpisse coëptum*, e quibus *coepisse* non minus recte quam cetera contrahi potuit eo modo quem in *coemisse* notavimus libro II 1061.' 622 *Hoc ubi*

cet.: that this was also the doctrine of Democritus is abundantly shewn in Theophr. de sensu et sensil. 65, 66, 67 and elsewhere. 624 *Umida sudantia* is very Lucretian: comp. *candens lacteus, candens lucidus* and the like. *templa*: v 103 *humanum in pectus templaque mentis*: see n. to I 120: the *linguai templa* may have reference to the shape and position of the palate and the Greek οὐρανός. 627 *fine* = tenus, a rare use illustrated by Bentl. to Hor. od. II 18 30: he cites Ovid ex Ponto I 4 28 *Thessaliae fine*.

633—672: I will now explain why what is one creature's meat is another's poison: all creatures differ within and without; therefore they consist of different atoms; and the atoms being different, the pores and passages of the whole body, and also of the mouth and palate must differ: thus if food is pleasant to one creature, its smooth elements must suit the pores of that creature; if unpleasant, then its rough elements must more readily adapt themselves to them: and thus in disease, what was before sweet to a man may become bitter. 633 *almus*: II 390 *liquor almus aquarum*. 634 *quareve*; see n. to I 57 *Quove*. *triste*: see n. to I 944. 635 *perdulce* appears not to occur elsewhere. 636 *differitas*: see n. to I 653. 637 *ali* recurs VI 1226 *quod ali dederat*; *alei* is found twice in the new corp. inscr. Lat. and *ali* in one doubtful case: see also n. to I 263 *alid*. *fuat* we had already II 383. Democritus taught exactly what Lucr. teaches here: Theophr. de sensu et sensil. 63 σημεῖον δὲ ὡς οὐκ εἰσὶ φύσει τὸ μὴ ταὐτὰ πᾶσι φαίνεσθαι τοῖς ζῴοις, ἀλλ' ὃ ἡμῖν γλυκὺ τοῦτ' ἄλλοις πικρὸν καὶ ἑτέροις ὀξὺ καὶ ἄλλοις δριμὺ τοῖς δὲ στρυφνόν, and 69 ἁπλῶς δὲ τὸ μὲν σχῆμα καθ' αὑτό ἐστι, τὸ δὲ γλυκὺ καὶ ὅλως τὸ αἰσθητὸν πρὸς ἄλλο καὶ ἐν ἄλλοις, ὥς φησιν: G. H. Lewes' physiol. of common life p. 59 *that one man's meat is another man's poison is a proverb of strict veracity*. 638 *serpens*: Pliny nat. hist. VII 15 cited by Lamb., and XXVIII 35 gives similar accounts of the power of human spittle over serpents; and Hardouin illustrates them from various sources. 641 *coturnicibus*: this is confirmed by Hesych. ἐλλέβορος· βοτάνη ἣν ἐσθίουσιν οἱ ὄρτυγες, which his recent editor strangely alters to ὄρνυγες: Galen often mentions the same fact, as in his de temperam. III 4 at end καὶ τοῖς μὲν ὄρτυξιν ἐλλέβορος τροφὴ τοῖς δ' ἀνθρώποις φάρμακον, almost a translation of Lucr. Pliny too nat. hist. X 197 *venenis capreae et coturnices, ut diximus, pinguescunt*: V 899 *pinguescere saepe cicuta Barbigeras pecudes, homini quae est acre venenum*: comp. this and VI 970 foll. with Diog. Laer. IX 80 καὶ τῇ μὲν αἰγὶ τὸν θαλλὸν εἶναι ἐδώδιμον ἀνθρώπῳ δὲ πικρόν, καὶ τὸ κώνειον ὄρτυγι μὲν τρόφιμον, ἀνθρώπῳ δὲ θανάσιμον, and Sextus pyrrh. hyp. I 57 τὸ γοῦν κώνειον πιαίνει τοὺς ὄρτυγας, and Lewes l. l. p. 62 *the poisons are food to many, the rabbit devouring belladonna, the goat hemlock, and the horse aconite*. 643 *ante*, I 814, 895 and elsewhere. 647 *Ext. mem. circ.* we had above

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III 219, where see note. 651 *ipso* refers to *ore* as well as *palato*, they being singled out from the other *membra*, as those which have to do with taste. 652 *maioraque* i.e. *quaedam maiora*: comp. n. to 518. 654 *multangula* appears to occur in no other writer of a good age. 660 *contractabiliter* too seems a ἅπαξ λεγόμ.: the *a*, as twice in *contractans*. 668 *corpora* i.e the *levissima* of 659. 669 *cetera*: *Aspera nimirum hamataque* of 662. 671 Lachmann's note is quite beside the point: he gains nothing by transposing these vss.; for, as just shewn, the *quae corpora* of 668 and the *cetera* of 669 are the very *levissima* and *Aspera* respectively, for which he makes his transposition. I now incline to reject also Bernays' notion of a lacuna: the mention of honey is somewhat abrupt; but that is explained by the fact that it was proverbial as an illustration of the merely relative notion of sweet and bitter: thus Sextus pyrrh. hyp. II 63 ἐκ τοῦ τὸ μέλι τοῖσδε μὲν πικρὸν τοῖσδε δὲ γλυκὺ φαίνεσθαι ὁ μὲν Δημόκριτος ἔφη μήτε γλυκὺ αὐτὸ εἶναι μήτε πικρόν, ὁ δὲ Ἡράκλειτος ἀμφότερα. Now Lucr. has just specified fever with a flow of bile as the cause of this change of sweet to bitter: with this comp. Galen de simpl. med. temp. IV 17 οὐδὲν οὖν θαυμαστὸν οὐδὲ διὰ τί τὸ γλυκύτατον ἁπάντων μέλι τὸν πικρότατον γεννᾷ χυμὸν καὶ διὰ τί μάλιστα τοῖς ἀκμάζουσί τε καὶ φύσει θερμοῖς καὶ πυρέττουσιν....ὅταν ἀκραιφνεῖ πλησιάζῃ θερμότητι, τὸν χολώδη γεννᾷ χυμόν. Lucr. probably got his illustration from Hippocrates. 672 *supera saepe* in II and III: comp. II 391—407 with III 189—195, from which it will appear that honey has many smooth round atoms in it whence it gets its usually pleasant flavour; but at the same time it has a *constantior natura Et pigri latices magis et cunctantior actus* than water, and therefore has more rough and hooked atoms; so that in peculiar states of the tongue and palate, in fever for instance, these latter atoms happen to fit the pores better than the smooth ones, and produce a bitter flavour.

673—686: next to explain smell: it must stream on all sides from many things; but, as in taste, one kind suits one creature, another another: bees are attracted from far by the smell of honey, and so on: thus each creature is drawn to its proper food and avoids poison. 673 *adiectus*: this rare word is similarly used I 689 *nostros adiectu tangere tactus*. 674 *primum* cet.: so Epic. in Diog. Laer. X 53 καὶ μὴν καὶ τὴν ὀσμὴν νομιστέον ὥσπερ καὶ τὴν ἀκοὴν οὐκ ἄν ποτε πάθος οὐθὲν ἐργάσασθαι, εἰ μὴ ὄγκοι τινὲς ἦσαν ἀπὸ τοῦ πράγματος ἀποφερόμενοι σύμμετροι πρὸς τὸ τοῦτο τὸ αἰσθητήριον κινεῖν κ.τ.λ.: comp. too Locke essay II 8 13. 675 notice *fluens*, *fluctus*, *fluere* employed with his usual indifference to such repetitions. 681 *quo tulerit* i.e. quocumque tulerit. *permissa*: so 688 *Est alio ut possit permitti longius alter*: this use of the word is illustrated by Gronov. obs. II 13 p. 316 and by Forc. *per. can. vis*: VI 1222 *fida canum vis*; III 8 *fortis equi vis*; Aen. IV 132 *odora canum*

vis. 684 *nidor*: not only is *nidor* used here and elsewhere for *odor*, but VI 987 he has *nidoris odores*.

687—705: one smell will travel farther than another, but none so far as sound: I need not add as the images which excite sight; for it travels slowly and is soon lost, because it comes with much ado from the inmost parts of things, as proved by this that things when pounded or dissolved by fire smell more strongly: the atoms too of smell are greater than those of voice, since often a wall will stop the one and not the other; and thus too dogs often lose the scent. 688 *alio, alter*: *alter* thus used for *alius*, though unusual, recurs V 835 *ex alio terram status excipit alter*: just before, 829, he had said *Ex alioque alius status excipere*: Plaut. capt. 8 uses *alium* for *alterum*: *Seni huic fuerunt filii nati duo*: *Alium quadrimum puerum servus surpuit.* 689 *quisquam* in the masc. thus applied to an inanimate thing seems as rare, as its use as an adj. agreeing with an abstract subst. illustrated to I 1077 *quisquam locus.* 693 *facilis* seems here to mean readily absorbing the scent, a sense not very different from the common one readily yielding. 699 *quam vox*: see n. to III 456 *ceu fumus*: this constr. being so common in Lucr. it is curious that two of the greatest Latin scholars of modern times should have found fault with it: Lamb. says here 'Latine dici non potest *videre licet odorem maioribus principiis constare quam vox*'; and Madvig. opusc. pr. p. 312 makes a like objection to III 614 *ut anguis.* 704 *calida* is joined with *decurrunt.* *nuntia*: 1032 *simulacra.. Nuntia praeclari voltus*; VI 76 *simulacra feruntur.. divinae nuntia formae.*

706—721: but in the case of the forms and colours of things, as well as smells and tastes, some are suited to one creature, unsuited to another: thus for example the lion fierce as he is cannot face the cock. 706 *hoc* refers of course to the argument which ended with 686, that the particles of a thing which excite taste and smell will often fit one creature, not another. It is hardly possible then to contest what Lach. says, that this is another of the passages added by Lucr. and not properly connected with the rest of the poem. 710 *explaudentibus* must mean driving off the night with their noise, as an actor is driven off the stage. 713 *mem. fugai*: comp. Homer's μνησώμεθα χάρμης and the like: not unlike is 153 *quam meminit levor praestare salutem*; and Virg. geor. I 400; but there and ecl. VIII 88, borrowed from Varius, the negative is introduced. Pliny twice mentions what is here asserted of the lion, VIII 52 and X 48. 716 *interfodiunt*: 'the idea of *through*.. is often found with *inter* in Lucr., as IV 716 *inter-fod-* dig a passage through, VI 333 *inter-fug-* fly through, and IV 868 *inter-datus*, distributed through' Prof. Key in trans. of the philolog. soc.: all these words seem peculiar to Lucr.

722—748: the mind too receives its impressions from images flying

about on all hands, which however are much finer than those by which we see: images are of different kinds, some formed spontaneously in the air, some coming from things or formed from a union of several; and thus we see centaurs and the like, though such never existed, from the chance union for instance of the image of a man and horse: the extreme fineness of such images makes them readily unite, and the wondrous agility of the mind itself at once receives them.—Lucr. in this and the following sections battles manfully and ingeniously with the prodigious difficulties under which the epicurean theories on this question labour. Cicero's philosophical writings are full of clever argument and banter directed against them, sometimes successful, but often captious and unfair. 724 *rer. sim.*: Plut. de plac. phil. IV 8 Λεύκιππος, Δημόκριτος, *τὴν αἴσθησιν καὶ τὴν νόησιν γίνεσθαι εἰδώλων ἔξωθεν προσιόντων*: Cic. ad fam. XV 16 thus jests with the new epicurean convert Cassius *fit enim nescio qui, ut quasi coram adesse videxre, cum scribo aliquid ad te; neque id κατ' εἰδώλων φαντασίας, ut dicunt tui amici novi qui putant etiam διανοητικὰς φαντασίας spectris Catianis excitari. nam, te ne fugiat, Catius Insuber epicureus, qui nuper est mortuus, quae ille Gargettius et iam ante Democritus εἴδωλα, hic spectra nominat.* 726 *Tenvia* emphatic from its position: see n. to 63. 727 *brattea*: 'videndum est ne barbaram consuetudinem sequantur qui scribunt *bractea*, ut *mactea blacta Actius Actis auctumnus arctus farctus mulcta*, quae ante quadringentos vel quingentos annos nata sunt' Lach.: see also n. to I 70 *arta*. 729 *percipiunt*: III 28 *voluptas Percipit adque horror*; 80 *Percipit humanos odium*; V 605 *Aera percipiat.. ardor*; VI 804 *percepit*. 730 *cientque* cet.: Cic. l.l. 2 *his autem spectris etiam si oculi possent feriri, quod vel iis ipsa occurrunt, animus qui possit ego non video.*

732 *Centauros, Scyllarum* are brought together V 891 foll.: comp. too Aen. VI 286 *Centauri in foribus stabulant Scyllaeque biformes*, probably a reminiscence of Lucr. Cicero in combating this doctrine brings together *Scyllas Chimaerae hippocentauri*. 733 *Cer. can. fac.* is not like the instances cited in n. to I 474, but may resemble I 119 *Per gentis Italas hominum*: the *Cerbereas* merely defines what the *facies* are. *eorum Quorum* cet.: I 134 *coram Morte obita quorum* cet. 'ut appareat eum haec paria ac simplicissima *eorum Quorum* non improbasse, noluisse autem quae dissimilia essent, sed non satis, coniungere, *coram quorum*' Lach. 736 *sponte sua quae fiunt* cet. the συστάσεις explained 131 *Sunt etiam quae sponte sua gignuntur* cet. *aere in ipso*: *ipso* is used here as II 438 *corpore in ipso*; III 128 *in ipso Corpore*; 483 and 506 *corpore in ipso*; 575 *in ipso corpore,* 590 *corpore in ipso*; VI 224 *in aedibus ipsis*; 579 *Aut extrinsecus aut ipsa tellure*; 806 *terra quoque sulpur in ipsa Gignier*; 1128 *aere in ipso*; II 117 *radiorum lumine in ipso*; III 683 *in ipso sanguine cresse*; that is it merely points the contrast between

the thing spoken of and something else: in all these cases *intus in* pretty nearly gives the force of *in ipso*. 738 *quae confiunt*: v 890 *Ne forte ex homine et veterino semine equorum Confieri credas Centauros posse.* 739 *Nam certe* cet.: Cic. de nat. deor. I 108 uses this as an argument to overthrow the theory in question: *quid, quod earum rerum quae numquam omnino fuerunt neque esse potuerunt, ut Scyllae, ut Chimaerae?* 736—739 obs. *fiunt, confiunt, facta, fit.* 741 *equi atque*: Lach. in his most elaborate n. to III 954 goes through the whole range of Latin poetry to determine who can and who cannot thus elide the last syll. of an iambus; and this liberty he peremptorily refuses to Lucr. I am not convinced: his contemporary Cicero whose principles of versification much resemble his own, could write *rĕtro ad, leo et*; his contemporary Catullus *ioco atque, ave atque*. But Lucr. had he thus elided once, must surely it may be said have done so more than once: yet he once and only once, v 849 *debere*, has a hypermetrical verse; twice and twice only he lengthens a short syll. by the caesura, II 27 *fulget auroque*, v 1049 *sciret animoque*; and twice by caesura leaves a long vowel long and unelided, III 374 *animae elementa*, VI 755 *loci ope*; though in five of these six cases Lach. tampers with the text. 742 *Haerescit*: II 477 *haerescere*: lexicons give no other instances of the word. *ante* i.e. 726. 746 *prius* i.e. 176 foll. 747 *Quaelibet una*, and therefore even the most incongruous assemblage of things, if they have for the instant formed into one image. 748 *ipsa*, as well as the images.

749—776: so far as what the mind sees resembles what the eye sees, their causes must be like: now the lion we see in mind is the same we see with the eyes, both therefore are seen by images: and thus in sleep we see, for instance one who is dead, by images coming to the mind; the senses and memory being then inactive and not able to detect the absurdity: again images move as we see them in sleep, merely because some are coming others going every instant, so that they appear to be the same in different postures. 752 *Nunc igitur*: III 203 and 434 *Nunc igitur quoniam*: the particles imply that having established a principle, he now proceeds to apply it. *docui quoniam*: Aen. v 22 *superat quoniam fortuna, sequamur.* 'Lambinus recte dedit *quoniam docui*, ut in III 203 *Nunc igitur quoniamst animi natura reperta*' Lach.: an illustration not at all to the point: neither there nor in 434 could he have changed the place of *quoniam*: he has here written *docui quoniam* probably for the pleasanter sound: comp. II 547 and n. there. 754 *mentem* cet.: Cic. de nat. deor. I 108 *vos autem non modo oculis imagines, sed etiam animis inculcatis: tanta est impunitas garriendi.* 757 *profudit*: Paulus Fest. p. 228 '*profusus*...abiectus iacens. Pacuvius *profusus gemitu murmuro*': III 113 *Effusumque iacet sine sensu corpus honustum*, in same sense. 758 *Mens animi*: see n. to III 615. *simu-*

lacra cet.: Cic. l. l. *quid, quod etiam ad dormientem veniunt invocatae? tota res, Vellei, nugatoria est.* 761 *Rellicta*: see n. to II 1001 *rellatum*. 763 *offecti*: see n. to II 156 *Officiuntur*. 765 *meminisse* = memoria: see n. to I 331. 766 *dissentit* does not appear to occur elsewhere with this constr. *mortis letique*, another curious tautology: comp. 274 *duplici geminoque*, 451 *Bina geminare*. *potitum*, said of meeting with an evil, is illustrated by Forc. from Plautus Attius Terence and others. 771 *perit*: see n. to III 1042: this ingenious explanation resembles that given above 318—323 of the movements of an image in a mirror. 772 *Indĕ statu*: above *Unde scias*; below *Libera sponte*; *superbia spurcitia*; even three consonants *mollia strata*, *manantibus stillent*; nay four *pendentibus structas*. 775 *sensibili quovis tempore in uno* is Epicurus' ἐν αἰσθητῷ χρόνῳ: see n. to 795 where the passage is quoted and illustrated: 795 is a paraphrase of the one word *sensibili*.

777—817: this question offers many difficulties: why does a man think of whatever he wishes to think, sea or earth or sky? while others in the same place have quite other thoughts: why too in sleep are these images seen to move rhythmically? are they forsooth trained by art? or is it that in the least sensible time many times are latent, in which many images can appear? the mind again, like the eye, in order to see must often attend and exert itself, else they will pass unheeded: again the mind adds many false inferences to what is seen.. 818 foll. are immediately connected with the passage ending at 776; and our present paragraph discusses the same questions as that passage sometimes in the same, sometimes in a different spirit, without the least reference to it. Lach. is therefore incontestably right in including this among those subsequent additions which Lucr. made to his poem, but did not live to incorporate fully with the rest. The poet is evidently embarrassed by the prodigious difficulties which this theory of mental apprehension involves and struggles hard to solve them: not content with the preceding paragraph, he has tried to better his argument in this one. 779 *quod* depends on *cogitare* understood from *cogitet*: cogitet id ipsum, quod cogitare libuerit. 'haec quaestio' says Lamb. 'quare quod cuique libuerit, id cogitet, cum cogitatio simulacris excitetur, pendet ex superiore cet.': these words of Lamb. Havercamp with his usual diligence prints as a continuation of the words of Cicero cited just before; and Wak. with a no less conscientious diligence remarks 'locus etiam Ciceronis nat. deor. I quem Lambinus apposuit Lucretiano est consimillimus, *haec quaestio quare quod cuique libuerit id cogitet* cet.' The blunder does some credit to their taste in Latin, as Cicero has seldom had a better imitator than Lamb. Cic. epist. ad fam. XV 16 thus jokes with his friend Cassius *doceas tu me oportebit, cum salvus veneris, in meane potes-*

tate sit spectrum tuum ut, similac mihi collibitum sit de te cogitare, illud occurrat; neque solum de te qui mihi haeres in medullis; sed si insulam Britanniam coepero cogitare, eius εἴδωλον *mihi advolabit ad pectus?* and de nat. deor. I 108 he asks *quid, quod hominum locorum urbium earum quas numquam vidimus? quid, quod similac mihi collibitum sit, praesto est imago?* and comp. the fuller discussion of the same question in de div. II 137. 783 *denique*: see n. to I 278. 785 *sub verbo* 'est sub iussu' Lach. who refers to Lactant. inst. IV 15 22 *statimque sub verbo eius tranquillitas insecuta est*: comp. too 545 for the use of *sub*, *Cum tuba depresso graviter sub murmure mugit.* 786 *Cum praesertim* has here precisely the force which we are taught by Madvig de fin. p. 190 it often has in Cicero: 'and that too although': he cites pro Sex. Roscio 66 *videtisne...cum praesertim deorum immortalium iussis atque oraculis id fecisse dicantur, tamen ut eos agitent furiae.*

791 *repetunt* seems = iterant: this and the preceding v. explain the *mollia membra movere*, so that *repetunt* has no reference to *bracchia*, but merely to the presenting again and again to the eyes the same *gestum* with foot moving in time to the movements of the arms and body. 792 *Scilicet* introduces of course an ironical reason. *madent*: Hor. od. III 21 9 *Socraticis madet Sermonibus* well illustrates the force of the word, because there is a play there on the literal and metaphorical sense: for other examples see Forc. 794 *An magis*, giving what he believes to be the most likely cause. 795 is as we said above a paraphrase of *sensibili*: Lucr. means that the smallest sensible time is about equal to the time in which we can utter one word, and that in that smallest time are latently contained many rational times, or times such as the mind can conceive by its reason to exist. Thus in the smallest thing perceptible to sight or touch are contained very many things which the reason alone can apprehend, viz. atoms or the parts of atoms. With Lucr. comp. the τοὺς διὰ λόγου θεωρητοὺς χρόνους and the ἐν αἰσθητῷ χρόνῳ of Epic. in Diog. Laer. x 47 and with the *Cum sentimus id et cum vox emittitur una* x 33 ἅμα γὰρ τῷ ῥηθῆναι 'ἄνθρωπος' εὐθὺς κατὰ πρόληψιν καὶ ὁ τύπος αὐτοῦ νοεῖται προηγουμένων τῶν αἰσθήσεων. 802 foll. the reasoning here is all very good; but neither here nor elsewhere does he explain the all-important point how the mind is first turned to any object of thought. When the mind is once roused and the will set in motion, then it may be said it attends solely or mainly to the images connected with such object: but why should one image more than any other image first strike on the mind? this he does not explain: he attributed it I presume to accident, and therefore thought it unnecessary to enlarge upon it. Comp. 885 *Id quod providet* cet. and what is said there. 802 *quae contendit* i.e. cernere, as Wak. rightly explains it; it comes therefore to the same thing as,

nay is somewhat more emphatic than the *se contendit* of Lamb. and Lach. *acute Cernere*: 810 *cernamus acute*: Wak. compares Hor. sat. I 3 26 *Cur in amicorum vitiis tam cernis acutum?* 811 *Et tamen*: see n. to I 1050. 813 the want of a subject to *semotum fuerit* seems to me, as it seemed to Lamb., very harsh. 815 *in rebus deditus*: see n. to III 647. 816 *adopinamur* and 817 *frustraminis* seem both to be ἅπαξ λεγόμ. With this comp. the very similar argument of 464—468.

818—822 (826): sometimes too a woman will change to a man, or the like, but in sleep we do not perceive the incongruity.—As was said above this passage connects itself directly with that ending at 776, and continues the question of images which strike the mind in sleep.

823 (822)—857: pray do not think that the parts of the body have been given us in order to be used: in truth their use arose long after their first existence: before the eyes there was no seeing, before the tongue no speaking: on the other hand the instruments of peace and war we know to have been invented after their use was known; not so the senses and the limbs, which you must not believe to have had a final cause, as swords and shields, cups and beds had.—This passage too, as Lach. has proved to demonstration, interrupts the regular sequence of the argument, and must be a subsequent addition of the poet's: see the introductory remarks to II 165—183, where I have stated how Lach. brings the present into comparison with cognate passages in II and V. 823 *Illud* cet.: the argument is well put by Lactant. inst. III 17 with evident reference to Lucr. of whom he was a diligent student, *neque oculi facti sunt ad videndum neque aures ad audiendum neque lingua ad loquendum neque pedes ad ambulandum, quoniam prius haec nata sunt quam esset loqui audire videre ambulare. itaque non haec ad usum nata sunt, sed usus ex illis natus est.* *avessis*, like *amassis prohibessis* etc. so common in the older writers: the scholiast to Lucan IV 265 says '*avet* i. avide cupit. sic Lucretius saepe ponit'; and this is quite true. 824 *praemetuenter*, another ἅπαξ λεγόμ. 826 *prof. qu. Proc. pas.*: 877 *Nunc qui fiat uti passus proferre queamus.* 828 *ped. fundata*: V 927 *solidis magis ossibus intus Fundatum, validis aptum per viscera nervis*: the latter words explain *plicari*, which graphically describes the mass of sinews and tendons in that part. 830 *manus... ministras*: Cic. de nat. deor. II 150 *quam vero aptas quamque multarum artium ministras manus natura homini dedit*, says the stoic Balbus in the middle of his strenuous defence of final causes. No doubt the zeal with which the stoics maintained this doctrine added vehemence to Lucretius' denunciations. Arist. de part. anim. IV 10 p. 687 8 in the midst of his long and brilliant statement on the side of the final cause quotes Anaxagoras' famous saying διὰ τὸ χεῖρας ἔχειν φρονιμώτατον εἶναι τῶν ζῴων ἄνθρωπον, and retorts εὔλογον δὲ διὰ τὸ φρονιμώτατον εἶναι χεῖρας

λαμβάνειν, and a few lines after οὐ διὰ τὰς χεῖράς ἐστιν ὁ ἄνθρωπος φρονιμώτατος, ἀλλὰ διὰ τὸ φρονιμώτατον εἶναι τῶν ζῴων ἔχει χεῖρας: l. l. I 1 p. 640 19 he refutes Empedocles' saying τὴν ῥάχιν τοιαύτην ἔχειν, ὅτι στραφέντος καταχθῆναι συνέβη. 831 *ad vitam quae foret usus*: v 844 *nec sumere quod foret usus*. *quae* I take to be the accus.: comp. Plaut. pseud. 385 *Ad eam rem usust hominem astutum doctum scitum et callidum*; or *facere* may be supplied: for Lucr. 1268 *Nec molles opu' sunt motus*, like other writers, uses the plur. verb with a nom. plur. 832 *inter quaec. pretantur*: see n. to I 452. 836 *videre*, 837 *orare*, 843 *conferre*, 844 *lacerare*, *foedare*, 848 *mandare*, 850 *sedare* all = nom. subst.: see n. to I 331. 841 *foret usus*: *usus* has here of course its ordinary sense: *foret usus* above with the meaning of *foret opus* seems to have suggested to him the use of the words here in another sense: comp. I 875 *latitandi...latitare*, and n. there. 843 *At contra* etc.: Arist. de part. anim. I 5 and IV 10 goes over much the same ground as Lucr. here, and comes to exactly opposite conclusions: he uses the tools made by a man as a proof that the tools made by nature had the same end in view, the hand being ὡσπερεὶ ὄργανον πρὸ ὀργάνων: the body and all its parts are made for the functions they perform, as the saw is made for the sake of sawing: the sawing is not done for the sake of the saw. *conferre manu cert. pug.*: Lach. compares Aen. VII 604 *Getis inferre manu lacrimabile bellum* and X 146 *inter sese duri certamina belli Contulerant*. 847 *daret obiec. parmai* = obiceret parmam, *daret*, as so often, being = faceret: see n. to 41: Aen. II 443 *clipeosque ad tela sinistris Protecti obiciunt*. 852 *ex usu vitaque* seems to be the same as *ex usu vitae*. 856 *procul est ut credere possis*: *haud* or *non procul esse quin* is a more common expression.

858—876: the body requires food, because it loses many particles constantly, and thus an aching void is produced, which has to be filled up and the pain allayed: liquid too is taken into the body and quenches the particles of heat in the stomach: thus both thirst and hunger are appeased.—These vss. too, as Lach. p. 259 shews, are well adapted to the general subject of IV, but here interrupt the connexion of the argument and are manifestly an after-thought of the poet's. 860 *fluere* cet.: II 1128 *Nam certe fluere adque recedere corpora rebus Multa manus dandum est*: this with what precedes and follows is what the poet refers to in *docui*, together with perhaps IV 218—229: IV 695 *Nam penitus fluere atque recedere rebus odores*. 865 *igitur* in the apodosis: see n. to I 419. 866 *Subruitur*, 867 *suffulciat* belong to the same metaphor, the shoring up a falling structure: Hor. sat. II 3 153 *ni cibus atque Ingens acccedit stomacho fultura ruenti*: comp. II 1140 *fulcire cibus* and n. there: Lucr. speaking of the causes of sleep says IV 942 *Fit quasi paulatim nobis per membra ruina*, and then 950 *Et quoniam non est quasi quod*

suffulciat artus. 868 *interdatus*: see n. to 227. *patentem*, 869 *opturet* are also the same metaphor. 869 *amorem edendi*, the ἐδητύος ἔρον of Homer which Virgil too translates by *amor edendi.* 875 *tibi*: see n. to I 797.

877—906: this is how we walk: idols of walking strike the mind, and rouse the will; next the soul throughout the body is stirred by the mind, and then the body by the soul: the body too is then rarefied, and the outer air at once enters into all the opened pores; so that the body is pushed on as a ship by the wind; the mass of the body being moved and steered by a few small particles, just as a big ship by the rare wind and by the hand of the pilot: thus too a machine will easily lift a heavy weight. 882 *Accidere* in its literal sense has in Lucr. four constructions, II 1024 *ad auris*, IV 215 *in oras*, V 608 *segetes stipulamque Acc.*, here *animo* and V 97 *res menti Acc.* *ante* i.e. 722 foll. 884 *quam mens* cet. as shewn III 245 foll.: *quam ante*: III 973 *quam nascimur ante.* 885 *quod* is the conjunction: Lamb. Creech and others have misunderstood and corrupted the passage: *id* and *illius rei* refer of course to the same thing, viz. *quid velit*; and *quod* has a peculiar but not unusual force, denoting rather the effect than the cause: indeed 'providet id, quia eius imago constat' would express exactly the meaning of Lucr.: to give the word its ordinary sense 'because' would absurdly pervert the reasoning; for 881 *animo nostro primum* cet. the images first of all strike the mind: comp. our note and illustrations to 724 foll. and 802 foll. and Cic. de fin. I 21 *imagines quas* εἴδωλα *nominant quorum incursione non solum videamus, sed etiam cogitemus*, and Plut. de plac. phil. IV 8 of Leucippus and Democritus μηδενὶ γὰρ ἐπιβάλλειν μηδετέραν [νόησιν] χωρὶς τοῦ προσπίπτοντος εἰδώλου: *quod* cet. therefore means 'the reason why it predetermines that thing is this: an image etc.': comp. Aen. II 180 *Et nunc quod patrias vento petiere Mycenas, Arma deosque parant*, the reason why they have sailed to Mycenae is this: they wish to prepare etc.: the instances in Heinsius' note referred to by Wagner, and in Madvig's gram. 398 b 2 are of a totally different kind; but quite similar is Ov. amor. III 5 39 *Pectora quod rostro cornix fodiebat acuto, Ingenium dominae lena movebat anus. Quod cunctata diu taurum sua vacca reliquit, Frigidus in viduo destituere toro*, to understand why the crow pecked at your breast, you must know, the bawd etc.; and not unlike is II 532 *Nam quod rara vides* cet. in reply to the fact that you see etc. it may be said that in other countries etc.; and VI 740 *quod Averna vocantur nomine* cet. wrongly tampered with by Lach. *rei* monos. as III 918. 887 *corpore toto* cet.: see n. to II 271. 889 *coni. tenetur*, so fully explained in III; as 136 *animum atque animam dico coniuncta teneri Inter se atque unam naturam conficere ex se.* 896 *rebus utr. duabus* are clearly the inward movement of the body by the impulse of

the *animus* and *anima*, and the propulsion from without by the entrance of the outer air. *velis ventoque* then do not appear to correspond fully to this twofold cause of motion; as they would seem to represent merely the effect of the outer air on the body. Gassendi therefore had some reason for proposing *remis ventoque*: the *remis* would answer well enough to the *anima* and its effect on the body. The only way I can explain the text is this: the body alone would be like the hull of the vessel, upon which the wind could make no effectual impression; the lighter and subtler *anima* represents the light and flexible sails upon which the wind can work with a good result: but this is scarcely perhaps satisfactory. 899 *Tantula tantum corpus corpuscula*: v 593 *Tantalus ille queat tantum sol mittere lumen*: but this love of antithesis shews itself in a hundred ways in Lucr. as we have seen and shall see: 901 *suptili corpore tenuis, magnam magno molimine*; 905 *pondere magno, levi nisu.* 902 *molimine* expresses the momentum of the huge ship in motion: Livy II 56 4 *res suo ipsa molimine gravis.* It may refer however to the great force of the impelling wind; as Ov. met. XII 356 *solidoque revellere trunco Annosam quercum magno molimine temptat.* 904 *contorquet* of steering, as 900 *Contorquere*; Aen. III 562 *Contorsit laevas proram Palinurus ad undas.* 905 *trocleas* were certain arrangements of blocks of pulleys, described by Cato and Vitruvius. *tympana* seem to have been wheels which revolved by men treading on them, and raised to their places columns and other heavy weights; both the *trocleas* and *tympana* being portions of the same *machina.* 905 *pondere magno* abl. of quality depending on *Multa*: it gains force by its position: comp. v 556 *quam magno pondere nobis Sustineat corpus tenuissima vis animai*; Aen. IX 512 *Saxa quoque infesto volvebant pondere*; X 381 *magno vellit dum pondere saxum.*

907—928: sleep takes place, when the soul is scattered in the body, and part of it has gone out, part withdrawn into the depths of the body: only part however can go forth; else death would ensue: enough must stay behind to let sense be rekindled, as fire is rekindled when buried under the ashes. 907 *somnus* cet.: Macrob. sat. VI 1 44 compares with this Aen. I 691 *placidam per membra quietem Inrigat*, and Furius in primo *mitemque rigat per pectora somnum*: comp. too Aen. III 511 *fessos sopor inrigat artus*; Pers. v 56 *inriguo somno*; and Prof. Conington to Aen. I 691. 909—911 = 180—182. 912 *da tenuis* cet.: I 50 *vacuas auris animumque sagacem.. adhibe.* 916 *somnus fit*: Epic. in Diog. Laer. X 66 ὕπνον τε γίνεσθαι τῶν τῆς ψυχῆς μερῶν τῶν παρ' ὅλην τὴν σύγκρισιν παρεσπαρμένων ἐγκατεχομένων ἢ διαφορουμένων, but the next words are clearly corrupt. 916—918 are the same in meaning as 944 foll. and 959—961 *Fit ratione eadem coniectus* cet. 924 *corpus* cet.: III 401 *Et gelidos artus in leti frigore linquit.* 927 *reconflari*

seems not to occur elsewhere: the metaphor is of course from kindling fire.

929—961: sleep is thus produced: the body is constantly beaten upon by the outer air as well as by that which is inhaled by breathing: thus assailed within and without the body gives way, and the soul is disordered, part of it as has been said leaving the body, part withdrawing into its recesses, while the rest cannot perform its functions: thus the body too becomes languid and powerless: again sleep follows eating, because the food in passing into the system acts on it as the air does; and the disorder of the soul is then greater than ever. 934 *eius* i.e. aeris: *aeriis auris* being the same as *aeris auris*, which he often uses: see n. to I 352, and comp. II 174 *genus humanum quorum*, and n. there: so Cassius in Cic. epist. ad fam. XV 19 1 *propter spectra Catiana, pro quo* i.e. Catio; Aen. I 671 *vereor quo se Iunonia vertant Hospitia*: *haud tanto cessabit* i.e. Iuno; Plaut. rud. 598 *Ad hirundininum nidum* cet. followed by *Neque eas* i.e. hirundines. 939 *utrimque secus*: 'Lucil. sat. lib. XXII *Zopyrion labeas caedit utrimque secus*' Nonius p. 210: the expression is not uncommon in later Latin, as in Appuleius: in Cato apparently it is followed by an accus., *secus* being = secundum. Comp. the use of *versus* and *versum* with *undique sursum* and the like; and *extrinsecus intrinsecus altrinsecus*. 940 941 comp. above 894 895. 944 *fit uti pars inde* = inde fit uti: see n. to II 1004. 944 foll.: comp. above 916—918 and below 959—961. 947 *mutua fungi* occurred III 801, where see n. and references. 952 *cubanti* cet. i.e. quamvis cubanti, tamen saepe cet.: comp. 987 *cum membra iacebunt In somnis sudare tamen*; 991 *in molli saepe quiete Iactant crura tamen*: see also III 553 and n. there. 953 *summittuntur*: I 92 *terram genibus summissa petebat*; where see note. 959—961: comp. above 916 foll. and 994 foll. where all the same symptoms are mentioned; but here, as the sleep is heavier than usual, each symptom is aggravated: *altior, largior, divisior*. 961 *divisior, distractior*: these comparatives seem unexampled: Paterculus has *distractissimus*; but the superl. of participles is not so rare as the compar.: V 394 *superantior*, III 397 and VI 238 *dominantior* seem also confined to Lucr. *in test*, for 957 we have *Quem satur aut lassus capias*.

962—1036: the dreams of men generally turn on what has chiefly occupied their waking thoughts, whether business or pleasure: it is the same with brutes too: again the passions which are strongest in men often display themselves in dreams, as well as other mental states. 962 foll. comp. Attius fab. praetex. 29 *Rex, quae in vita usurpant homines, cogitant curant vident, Quaeque agunt vigilantes agitantque, ea sicui in somno accidunt, Minus mirum est.* 962 *quo* depends on *devinctus*, as shewn by the imitation of Fronto quoted by Lach. *ut, quo*

studio quisque devinctus esset, aut histrionem in somnis fautor spectaret aut cet.: Cic. epist. ad fam. III 13 2 *in iis studiis, quibus uterque nostrum devinctus est.* 964 *Atque in ea*, following relative clauses: see n. to I 718. 966 *Causidici* cet.: Petronius frag. XXX evidently had this part of Lucr. in his mind: *Somnia quae mentes ludunt* cet. and *Qui causas orare solent, legesque forumque Et pavidi cernunt* cet.: perhaps too he was thinking of Lucr. when he wrote sat. 104 hinc scies *inquit Eumolpus* Epicurum esse hominem divinum qui eiusmodi ludibria facetissima ratione condemnat. *componere*: Cic. de leg. I 14 *an ut stipulationum et iudiciorum formulas componam. leges*: abundant examples of *leges* of buying selling letting may be seen in Cato de re rust. 145 foll. *oleam faciundam hac lege oportet locare, oleam pendentem hac lege venire oportet*; and so of *vinum pendens, vinum in doliis, pabulum hibernum, fructum ovium, qua lege venire oportet.* 967 *pr. obire*: Aen. VI 167 *pugnas obibat*; Livy IV 7 2 *obire tot simul bella.* 968 Lamb. finds *degere bellum* inadmissible; Lach. thinks that it is unexampled, but may perhaps be supported by *agere* and *peragere bellum.* 969 *agere hoc*: see n. to I 41. 975 *sens. us.*: see I 301 *Usurpare oculis* and n. there. 978—981 form two consecutive rhyming couplets. 980 comp. above 788 *in numerum procedere cum simulacra Cernimus in somnis et mollia membra movere* cet. 984 *refert st. at. vol.*: Plaut. Persa 593 even uses the plur. *Quae ad rem referunt*: lexicons cite from Pliny *longitudo refert, non crassitudo*; *ratio refert.* 988 and 992 *tamen*: see n. to 952. 993 *redducunt*: Petron. sat. 98 *reducto timidissime spiritu.* 997 *redeant*: *donec* elsewhere in Lucr. takes always a past indic.: see n. to I 222. 998 and 1007 *At*: see n. to 414. *consueta* i.e. which has lived with the family and been domesticated; V 1334 *domi domitos*: Lach. compares Plaut. asin. 221 *amatores aves. Bene salutando consuescunt, compellando blanditer*: comp. also Ov. met. XI 89 *Hunc adsueta cohors Satyri Bacchaeque frequentant. catulorum blanda propago* = catuli blandi: see n. to III 741 *leonum Seminium*, and below to 1232. 1005 *seminiorum*: see n. to III 741. *quaeque*, the plural followed by the gen. is rare: comp. 311 *quaecumque speculorum.* 1009 *proelia pugnas*: see n. to II 118. 1010 the order is very perplexed: visae sunt edere, persectantes volantesque. 1011 *magnis motibus*: it is because they are under the stimulus of some great emotion, that in sleep they cannot get rid of it. 1014 *quasi si*, a rare union: Forc. quotes an instance from Plaut. cas.; and *quasei sei* occurs in the corp. inscr. Lat. 202 I 39: comp. *nisi si.* 1024 Wak. compares Aen. IX 680 *Sive Padi ripis, Athesim seu propter amoenum.* 1026 *Puri*: with Lach. I see no reason to take this for *pueri. lacum*: Lach. cites Juvenal VI 603 *Ad spurcos lacus. dolia*: Macrob. sat. III 16 15 quotes from C. Titius 'vir aetatis Lucilianae'

dum eunt, nulla est in angiporto amphora quam non inpleant. 1028 imitated by Seren. Samon. 77 *ex asino saccatus corporis umor.* 1029 *Babylonica*: 1123 *Babylonica fiunt.* Pliny nat. hist. VIII 196 *colores diversos picturae intexere Babylon maxime celebravit et nomen imposuit.* 1032 *quoque* i. e. quocumque. 1035 *transactis*: Theocr. II 143 Ἐπράχθη τὰ μέγιστα. 1036 *cruentent* appears to be irony, like 1049—1051.

1037—1057: 1037 *ante*, i. e. 1030 foll. 1042 *dec. corpore toto*: Epic. in Diog. Laer. X 66 τό τε σπέρμα ἀφ' ὅλων τῶν σωμάτων φέρεσθαι, as Democritus also taught according to Plut. de plac. phil. V 3: comp. too Hippocr. de genit. 8 ἡ γονὴ ἐξέρχεται καὶ τῆς γυναικὸς καὶ τοῦ ἀνδρὸς ἀπὸ παντὸς τοῦ σώματος. 1047 *Id* is accus., *corpus* nomin. 1049—1056: there is an elaborate irony in these vss.: the first three make a general statement, of which the last five are a special application. 1049 *omnes plerumque* seems to be used like *plerique omnes*: all fall towards their wound, whether in the fields of Mars or Venus or elsewhere; then 1055 is an ironical application of this. *in vulnus* seems intentionally ambiguous, meaning both the wound itself and that which occasions the wound: Aen. X 488 *Corruit in vulnus*; and comp. Lucan VII 603 *tunc mille in vulnera laetus Labitur* with 619 *letiferum per cuius viscera vulnus Exierit* and 625 *Quis cruor emissus perruperit aera venis Inque hostis cadat arma sui*: both Virgil and Lucan may have been thinking of Lucr. Livy I 58 11 *cultrum.. in corde defigit prolapsaque in vulnus moribunda cecidit.* This and the two next vss. are obelised by Lamb. and others, manifestly because they have not caught the poet's satirical irony, which pervades all this part of the poem. 1050 *sanguis*: see notes 1 to I 853: Virg. l. l. *sanguis animusque. icimur*: III 160 *icit.* 1051 *hostem* cet.: comp. Lucan l. l. *ruber umor* is said apparently with the same ambiguous irony as 1036 *cruentent.* 1052 *telis, ictus*, 1053 *iaculatur*, 1054 *iactans*, 1055 *feritur* are all used to keep up the play of thought noticed to 1049 of wounds and enemies. 1054 comp. Cic. Arat. 110 *toto spirans de corpore flammam.* 1056 *iacere umorem in corpus* is said too with manifest reference to the *Emicat sanguis* and *hostem ruber occupat umor.*

1058—1072: when tormented by love seek distraction; else your passion will only be increased by the absence of the object loved. 1058 *Haec* refers to *voluptatem*, *hinc* to *cupido* of the preceding v.; and there is the usual contrast between *Venus* and *amor* or *cupido*, the gratification of the passion and the passion itself: haec voluptas nobis est Venus; ex hac autem cupidine est nomen Latinum amoris, hoc est Cupido: with *Haec Venus* comp. 1084 1085 and especially 1073 *Nec Veneris fructu caret is qui vitat amorem.* 1059 *Hinc* also refers to *muta cupido*; so that this verse is a paraphrase of *voluptatem praesagit.*

illaec recurs 1083, where it is neut. plur. *illic illaec illunc illanc* occur in Plautus. 1060 *Stillavit gutta*: Bentl. compares Eur. Hipp. 527 Ἔρως, Ἔρως..Ὅστις στάζεις πόθον εἰσάγων γλυκεῖαν ψυχαῖς χάριν κ.τ.λ. 1061 *quod*: Plaut. trin. 242 *Nam qui amat, quod amat, cum extemplo eius saviis perculsus est.* 1064 *Absterrere sibi*: 1233 *satum genitalem numina cuiquam Absterrent*, with same sense and constr.; v 846 *natura absterruit auctum*: lit. to scare away, hence = adimere. 1066 *semel* cet. i. e. semel conversum in unum amore eius, with reference to 1064 *alio convertere mentem*: comp. too 1072 *alio possis animi traducere motus. conversum* agrees of course with the subject of the sentence. 1068 *vivescit*: 1138 *vivescit ut ignis. alendo*: see n. to I 312 *habendo*; and Virg. geor. III 454 *alitur vitium vivitque tegendo.* 1069 *gravescit*: III 1022 *gravescant*; VI 337 *gravescit*, for the *ingravesco* of prose. 1070 *Si non prima* cet.: does Cic. Tusc. disp. IV 75 allude to this: *etiam novo quidam amore veterem amorem tamquam clavo clavum eiciendum putant.* 1071 *volgivaga*: v 932 *Volgivago vitam tractabant more ferarum*: the word seems not to occur elsewhere; and to be intended to express Ἀφροδίτη πάνδημος. *vagus* implies *volgivaga Venus*: Sen. Herc. Oet. 364 *quot nuptas prius, Quot virgines dilexit. erravit vagus.*

1073—1120: moderation in this as in other passions affords the truest pleasure: indulgence only increases the force of the passion which food instead of appeasing only makes more ravenous. 1076 *miseris*, 1159 *miseri*, 1179 *miser* express the Greek δυσέρως, as often in Latin. 1080 *dentes inl.*: Hor. sat. II 1 77 *fragili quaerens inlidere dentem, Offendet solido.* 1081 *Osc. adfl.* i. e. adfligunt osculum osculo; for *osculum* seems here to have its literal sense of mouth: it is curious that here too A and B exemplify the usual confusion between *adfligo* and *adfigo.* 1083 *rabies* gen.: so Enn. ann. 401 *dies*, which form Gellius IX 14 6 on the authority of Caesellius and many old mss. assigns to Cic. pro Sestio 28, and after those 'qui scripserunt idiographum librum Vergilii se inspexisse' to Virg. geor. I 208: Gellius also defends and illustrates the forms *dii fami pernicii luxurii acii.* 1088 *repugnat* takes an infin. 1269 *prohibet se concipere atque repugnat*; Ovid her. XVII 137 *amare repugno Illum*; but there the word means to strive not to do a thing; here it means *contradicens affirmat.* 1091 *mem. ads. intus*: VI 1169 *Flagrabat stomacho flamma ut fornacibus intus*; Aen. VII 192 *Tali intus templo* cet. 1095 *Nil fruendum*: above 1078 *quid fruantur*: see n. to III 956. 1096 *quae* cet. sorry as it is, it is often snatched away before it can be enjoyed. 1100 *torrenti*: the overflowing stream increases the force of the contrast. 1102 *spectando*: see n. to I 312 *habendo.* 1106 *praesagit gaudia*: above 1057 *voluptatem praesagit.* 1107 is *in eost* personal here, *Venus est in eo ut*, or

impersonal *in eost* i. e. res in eo est, ut Venus? Livy II 17 5 *et cum... iam in eo esset ut in muros evaderet miles*, where there seems to be the same ambiguity: so Nepos I 7 *cum iam in eo esset ut oppido potiretur*; IV 5 *cum iam in eo esset ut comprehenderetur*: Servius to Aen. III 286 certainly makes the verb personal, *cum in eo essent ut iam civitatis potirentur*, imitated perhaps from Nepos; and so Soph. Elect. 21 ὡς ἐνταῦθ' ἐμέν, ἵν' οὐκέτ' ὀκνεῖν καιρός, if the reading is right. The sense of our passage at all events is *in eo res est ut Venus.* 1112 *facere* i. e. hoc facere: comp. 1153 *Nam faciunt homines.* 1118 *Cum* cet. i. e. cum quaerunt quid cupiant ipsi sibi cont.

1121—1140: lovers ruin their health and fortune; and even then their happiness is often poisoned by jealousy. 1121 *Adde quod*, 1122 *Adde quod*: III 1036 *Adde, Adde.* 1123 *Labitur res*: Plaut. trin. 243, in the midst of a scene describing a lover's ruin, *Ilico res foras labitur liquitur.* 1123 *Babylonica*: see n. to 1029. *Bab. fiunt* i. e. *res fit* or *vertitur in Babylonica*: 1129 *bene parta patrum fiunt anademata.* 1125 *Huic* i. e. amicae: certainly the absence of any word to shew the change of subject would be harsh; as before and after the lover, not the mistress, is the subject. *lenta.. Sicyonia*: ciris 169 *Cognita non teneris pedibus Sicyonia servans*: Cicero speaks of them as not suited for men. 1126 *cum luce*: see n. to I 755 and 287: Cicero in his Aratea has *Vergilias tenui cum luce*; *valida cum luce refulgens*; *larga cum luce Bootes*; *claris cum lucibus Orion*; and *cum lumine* again and again. *zmaragdi*: the *z* also in II 805: Ζμύρνα is found in Greek inscriptions, and ζμερδαλέα in the Herculanean ms. of Philodemus περὶ εὐσεβείας just published: Eustathius shews that this use of ζ before μ was very general: in Orell. inscr. 2510 *zmaragdi* occurs seven times. 1127 *Auro incl.* to be used probably as a *fibula* or brooch. *thalassina*: some shade of purple or ἁλιπόρφυρος: Plaut. miles 1179 *Palliolum habeas ferrugineum, nam is colos thalassicust.* 1129 *bene parta patrum*: Ter. Phorm. 788 *mei patris bene parta.* *anad. mitrae*: Aen. IX 616 *habent redimicula mitrae* and Antipater Sid. anthol. II p. 31 Ἄνδεμα δ' αὖ μίτρας might make us join the two words; but they are more emphatic when separate; and Paulus in the digest has *mitrae et anademata.* The *anadema* then will be an ornamental band for the head: χρυσέας κόμης Ἀνάδημα, says Eur. Hipp. 81; the *mitra* a scarf covering the head and much of the face; though it may be the other *mitra* or *zona*: μαλακαί, μαστῶν ἐνδύματα, μίτραι, says Hedylus anthol I p. 483. 1130 if Lachmann's *alideusia* is right, the word is not found elsewhere either in Latin or Greek. *Cia* i. e. Κεῖα: Lach. proves from Pliny IV 62 that Varro mistook Aristotle's Cos for Ceos: Lucr. and Pliny followed him in his error. Lucr. therefore in ignorance uses *Cia* or *Cea* for *Coa.* *vertunt* neut.: see n. to III 502 *reflexit*; and comp. V 1422 *neque in fructum convertere*

quisse. 1131 *veste*, the coverings of the furniture and hangings of the room. *ludi*, 'absurde in apparatu convivii' says Lach.: but they may well come in after the feast with the *Pocula crebra*, etc.: C. Titius 'vir aetatis Lucilianae,' in Macrob. sat. III 16 15 says of prodigals *ludunt alea studiose, delibuti unguentis, scortis stipati*; and all these preparations are here made for the *scorta*. A friend has called my attention to Cic. de fin. II 23 where 'ludos' comes in amid many articles of luxury not unlike what Lucr. here enumerates. Surely *tali tesserae* and the like are here in place: Propertius IV (V) 8 45, while describing a debauch very like the present, says *Me quoque per talos Venerem quaerente secundos Semper damnosi subsiluere canes.* 1132 comp. Plaut. asin. 803 *Tum si coronas serta unguenta iusserit* cet. *coronae* chaplets for the head, *serta* festoons or garlands to deck the doorways or other parts of the house. 1133 comp. Ov. met. VII 453 *usque adeo nulla est sincera voluptas Sollicitique aliquid laetis intervenit. Nequiquam quoniam*: the fondness of Lucr. for this expression, used in this way, is very striking: we had it just above 1110, it recurs below 1188; and it is found five times between V 1127 and 1332, where the poet is discoursing on the vanity of human wishes and efforts. It sounds like an echo of his own feeling, that the things which men most desire are all vanity. 1135 *remordet*: see n. to III 827. 1136 *lustris*: see Forc.: Cic. Phil. II 6 *vino lustrisque confectus.* 1137 *in amb. rel.*: Hor. epist. I 16 28 *Servet in ambiguo.*

1141—1191: if there are such evils in prosperous, what must be the evils of unsuccessful love? strive then not to fall into love; but if you are caught, use all efforts to escape: yet men stand in their own way, and deluded find beauties even in defects: the discarded lover will refuse all comfort; who yet, if received back, will find out his folly and be glad to get away again. 1141 the precise force of *proprio* is not very clear: it may mean that which you have to yourself, which belongs to you and which you do not share with others; or that which is constant, lasting, as Terence's *nihilne esse proprium cuiquam*, Virgil's *propriamque dicabo* and the like; or love which is real genuine and properly so called. *secundo* and *adverso amore* are illustrated by Bentl. from Tibullus and Propertius. 1142 *inopi* = ἀμηχάνῳ. ἆ δυσέρως τις ἄγαν καὶ ἀμάχανός ἐσσι. 1143 has the look of a proverb. 1150 *obvius obstes*: comp. *obvius obtulit, officere atque obstare* and the like. 1152 *petis ac vis*: with *petis* Lach. compares Aen. VII 54 *Multi illam magno e Latio totaque petebant Ausonia*; and Prop. II (III) 20 27 *Cum te tam multi peterent, tu me una petisti*: with *vis*, Plaut. asin. 542 *Sine me amare unum Argurippum animi causa, quem volo.* 1153 *Nam faciunt* = nam hoc faciunt: 1112 *Nam facere interdum velle*; 1195 *Nam facit ex animo saepe*: this seems better than coupling it with

Et tribuunt ea. 1157 *süadent* seems unexampled; but he uses *suësco* and *suetus* indifferently as dissyll. or trisyll.; *dissolüo* etc. oftener than *dissolvo*; *reliqüus* always; v 679 *conseqüe*; vi 552 and 868 *aqüae*; vi 1072 *aqüai.* 1160 foll. comp. Theocr. id. vi 18 ἦ γὰρ ἔρωτι Πολλάκις, ὦ Πολύφαμε, τὰ μὴ καλὰ καλὰ πέφανται. 1160 *Nigra* cet.: Theocr. x 26 Σύραν καλέοντί τυ πάντες, Ἰσχνὰν ἁλιόκαυστον, ἐγὼ δὲ μόνος μελίχλωρον: with this and what follows comp. the terms of the ἐραστοῦ ὑποκοριζομένου in Plato rep. v p. 474 D: Lucr. has been imitated by Ovid ars ii 657 foll. and translated by Molière le misan. ii 5 near end. *melichrus* occurs more than once as a term of praise in the anthology, and apparently means the same as Plato's μελίχλωρος l. l.: Ovid l. l. *fusca-vocetur, Nigrior Illyrica cui pice sanguis erit*; Molière *La noire à faire peur, une brune adorable. inmunda* cet.: Molière *La malpropre sur soi...Est mise sous le nom de beauté négligée.* 1161 *Caesia Pall.* the θεὰ γλαυκῶπις: Cic. de nat. deor. i 83 *caesios oculos Minervae*; Ovid l. l. *si rava, Minervae* [similis]. *lignea*: Catul. xxiii 6 *Et cum coniuge lignea parentis.* 1162 *Parvula*: Ovid l. l. *Dic habilem quaecumque brevis. merum sal*: Bentl. quotes Afranius 30 *quidquid loquitur, sal merum est.* 1165 *loquacula* seems not to occur elsewhere. 1166 *eromenion* is found in the anthology. *cum vivere* cet.: Ov. l. l. *Sit gracilis, macie quae male viva suast.* 1168 *At tumida*: Ov. l. l. *quae turgida, plenam. mammosa* etc.: his constant imitator Arnobius iii 10 *ab Iaccho Cererem, musa ut praedicat Lucretia, mammosam*, vi 25 *Ceres mammis cum grandibus*: the constr. seems to be *tumida et mammosa est Ceres ipsa* [tumida et mam.] *ab Iaccho*: some legends made Iacchus son of Demeter and brother of Core; sometimes too, as here, he was represented as an infant at the breast: so Suidas Ἴακχος· Διόνυσος ἐπὶ τῷ μαστῷ. 1169 *Silena* appears to be invented by Lucr. *satura*: Hesych. σατύραν· καταφερῆ. *labeosa* seems not to be found elsewhere: *labeosa*, as also *labea*; but *labium*: see Lach. 1171 *esto iam*: see n. to i 968 *si iam.* 1173 *Nempe, nempe, Nempe, facit, facere*: comp. *Adde, Adde* and the like. 1174 *eadem turpi*: see n. to iii 1038. 1175 *suffit*: Prop. iv (v) 8 83 *quemcumque locum externae tetigere puellae Suffit.* 1178 *Floribus et sertis*: strewing perhaps the lower *limen* or sill with loose flowers, and hanging the upper or lintel with festoons: Ovid ars iii 72 *Sparsa nec invenies limina mane rosa*; rem. 32 *Et tegat ornatas multa corona fores*; Prop. i 16 7 *mihi non desunt turpes pendere corollae*; or it may be a hendyadis for *floridis sertis*: Tib. i 2 14 *cum posti florida serta darem*; Catul. lxiii 65 *Mihi ianuae frequentes, mihi limina tepida, Mihi floridis corollis redimita domus erat.* 1178 *postis Ungit amarac.*: *my beloved put in his hand by the hole...I rose up to open to my beloved, and my hands dropped with myrrh and my fingers with sweet smelling myrrh upon the handles of the*

lock. I opened to my beloved. *superbos*, haughty and unrelenting as their mistress. 1179 *foribus* cet.: Aen. II 490 *Amplexaeque tenent postes atque oscula figunt.* 1180 *venientem* follows on the *iam amm.*, coming after leave given; exactly as 1177 *lacrimans exclusus* is weeping because shut out: a copula instead of being necessary, would be very awkward. 1181 *modō*: see n. to II 1135. 1182 *cadat*: Wak. compares Virg. geor. III 138 *Rursus cura patrum cadere*; but there the force of the word is not very clear: see Conington: *cadat* is perhaps like II 1175 *incassum cecidisse*: see Forc. 1183 *Stultitiae*: '*damnatur* aliquis *crimine* vel *iudicio*, sed *sceleris parricidii furti iniuriae.* in Ciri 188 quod habent exemplaria *tanto scelere damnare puellam* neque modulatum est neque Latinum' Lach. 1186 *poscaenia*: the Latins often said *pos* or *po* before many consonants, *pos tempus posquam pomeridianus* and the like: Ribbeck I see repeatedly introduces such forms into Virgil: see notes 1 to 1252.

1192—1208: yet women sometimes feel true love in return. 1195 *facit ex animo*: Ter. Andr. 794 *ex animo omnia, Ut fert natura, facias an de industria.* 1196 *spat. dec. am.*: III 1042 *decurso lumine vitae*; Ov. trist. III 4 33 *pede inoffenso spatium decurrere vitae.* 1199 *illorum* neut. may mean the females, according to Lucretius' usual practice when the reference is to different genders *volucres armenta* cet. *subat* in good writers seems always to be said of the female in heat. 1205 *Quom interea* seems a harsh elision; and none other like it is found in Lucr.; for II 850 *Quoad licet* is a synizesis. Virg. ecl. III 48 *Si ad vitulam*, and this eclogue appears to be one of his earliest: in Catullus such elisions are frequent: LXIV 305 he has *Cum interea*, as Lucr. here: IV 809 *contendere se atque parare*, the elision seems to have a similar effect. *val. Ven. com.*: 1148 *validos Veneris perrumpere nodos.* 1207 *iac. in fr.*: 817 *nos in fraudem induimus.*

1209—1232: according as the seed of the man or woman prevails at conception, the child is more like to the one or to the other; and this is so whether the child be male or female. 1209 *comm.* cet. i.e. comm. semine suo virili semine. 1210 *vim vicit vi*: in a very similar passage of Hippocr. de genit. 7 ἐκρατέετο is used in the same way: comp. too Plut. de plac. phil. V 11 where it is given as a stoical doctrine, κἂν μὲν ἐπικρατήσῃ τὸ τῆς γυναικός, ὅμοιον εἶναι τὸ γεννώμενον τῇ μητρί, ἐὰν δὲ τὸ τοῦ ἀνδρός, τῷ ἀνδρί: Censor. de die nat. 6, p. 16 13 refers this theory to Anaxagoras: *Anaxagoras autem eius parentis faciem referre liberos iudicavit, qui seminis amplius contulisset.* Epicurus may have got this as many other things from him; but Hippocrates, whom Lucr. had evidently studied, de genit. 7 and 8 teaches precisely the same: comp. especially 8 ὁκότερος δ' ἂν πλέον ξυμβάληται ἐς τὸ ἐοικέναι καὶ ἀπὸ πλεόνων χωρίων τοῦ σώματος, κείνῳ τὰ πλείονα ἔοικε· καὶ ἔστι ὅτε θυγά-

τηρ γενομένη ἔοικε κάλλιον τῷ πατρὶ ἢ τῇ μητρὶ καὶ κοῦρος γενόμενος ἔστι ὅτε κάλλιον ἔοικε τῇ μητρὶ ἢ τῷ πατρί. Lactant. de opif. dei 12 closely copies Lucr. but strangely attributes the theory to Varro and Aristotle: *cum semina inter se permixta coalescunt, si virile superaverit, patri similem provenire, seu marem seu feminam; si muliebre praevaluerit, progeniem cuiusque sexus ad imaginem respondere maternam.* 1211 *matrum, Ut patribus*: Cic de fin. v 12 *patri similis esse filius;* where Madvig thinks *patris* to be perhaps right, as Cicero and the older writers usually have a gen. of living things, especially men and gods, while with inanimate things the gen. and dat. are employed promiscuously: the dat. in later writers became almost universal: 1218 Lucr. has *similes avorum;* II 909 *simili totis animalibus;* IV 1230 *utri similest id,* neut. but referring to a living child: Madvig l. l. quotes Cic. de nat. deor. II 149 *plectri similem linguam nostri solent dicere, chordarum dentes, nares cornibus iis qui* cet. where, as in Lucr., both cases are found together. 1213 *vulta*: Nonius p. 230 quotes this v. and Ennius *vostraque vulta.* 1217 *neque utrum* i.e. neutrum: so v 839 *nec utrum*: *neuter* is only *ne* or *nec uter, ne* or *nec,* not *non,* being the old negative: see n. to III 199. 1220 *Propterea* cet.: Aristotle, who discusses these very questions de gen. anim. IV 3 p. 769 1 foll., finds them all more difficult to answer than Lucr. does: so l. l. 24 *διὰ τίν' αἰτίαν ἐοικὸς γίνεται τοῖς προγόνοις ὡς ἐπὶ τὸ πολὺ καὶ τοῖς ἄποθεν; οὐ γὰρ ἀπ' ἐκείνων γ' ἀπελήλυθεν οὐθὲν τοῦ σπέρματος.* 1225 (1227)—1228 (1226) must come in the order here given; for surely *voltus vocesque comasque* are comprehended in *facies et corpora membraque;* and if they were not, what reason could there be for the poet's asserting that they are as uncertain in their origin, as the body generally? just as if any body were likely to think that the less essential were more unvarying than the more essential: this indeed induced Lamb. to read *minus* for *magis.* Again, as Lach. says himself, *de semine certo* is here *aut virili aut muliebri,* one not both; and is opposed to 1229 *duplici de semine,* and forms a contrast with it: 1225 (1227) indeed begins a new question, which Arist. l. l. thinks it not easy to explain; why namely a male child may be more like the mother, a female like the father. 1225 (1227) *patrio* i.e. as well as *materno.* 1226 (1228) *Materno* i.e. as well as *patrio.* 1227 (1225) *haec* i.e. the distinctions of sex no more come *certo semine,* from either the father's or the mother's alone, than the form and features: Hippocr. l. l. emphatically asserts the same: thus 7 *οὗτος ὁ λόγος αἱρέει καὶ τὸν ἄνδρα καὶ τὴν γυναῖκα ἔχειν καὶ θῆλυν γόνον καὶ ἄρσενα,* and 8 at end *καὶ ταῦτά μοι καὶ τοσαῦτά ἐστι ἱστόρια τῷ προτέρῳ λόγῳ, ὅτι ἔνεστι καὶ ἐν τῇ γυναικὶ καὶ ἐν τῷ ἀνδρὶ καὶ κουρογονίη καὶ θηλυγονίη*: comp. this with Aristotle's doubts and difficulties. 1231 *possis* is potential: see n. to I 327.

1232 *virum suboles* would commonly mean the whole male sex; so in Cic. *omnem iuventutis subolem* = omnem iuventutem; *proles illa futurorum hominum* = futuri homines; and Virgil has *prolem parentum* for the stock to which the parents belong: Pliny *Sarmatae Medorum suboles*, of the same stock as the Medes: Lucr. himself II 662 *equorum duellica proles*; V 856 *procudere prolem* = 850 *procudere saecla*, their race; and III 741 *triste leonum seminium* = tristes leones, where see note; IV 998 *catulorum blanda propago* = catuli blandi. But here *virum suboles* means one out of the male sex; exactly as Hor. od. III 13 8 *Lascivi suboles gregis* means one out of the *suboles lascivi gregis* i. e. a kid; for *lascivus grex* cannot possibly mean anything but the young kids: in no other way can I understand *sanguis meus*, *genus deorum*, *deum gens* and the like, than as meaning belonging to my blood, one of the race of gods etc.: Aen. X 228 *deum gens, Aenea* seems synon. with VIII 36 *sate gente deum*: so too I understand VI 792 *divi genus* compared with *divum genus*; and Lucr. I 42 *Memmi propago* compared with IV 998 *catulorum propago*. *origo* has here the meaning of *partus* or birth: perhaps *mul. or.* is literally the beginning of a woman.

1233—1277: it is not the gods who grant or withhold offspring: conception depends on the due assortment of man and wife. 1233 *cuiquam Absterrent*: see n. to 1064. 1236 *Quod* cet.: VI 1015 *Quod facit et sequitur*. 1237 *adolent*: Aen. V 54 *strueremque suis altaria donis*, XI 50 *cumulatque altaria donis* being compared, this ambiguous word would seem to have the sense here of causing to grow, increasing, and so piling up: Virg. geor. IV 379 *Panchaeis adolescunt ignibus arae*, *adolescunt* seems to be its neut., grow or are piled up: but in Lucr. 'cause to smell' or 'burn' would give a suitable sense: see Conington to Virg. ecl. VIII 65. The notion of increase would appear to be the most natural, if the word had come to be merely one of good omen and conveyed only a conventional meaning to a Latin ear. 1239 *sortis*: Cic. de div. II 86 says *hoc quidem genus divinationis vita iam communis explosit. fani pulchritudo et vetustas Praenestinarum etiam nunc retinet sortium nomen, atque id in volgus*: these *Praenestinae sortes* he describes l. l. 85 as *in robore insculptas priscarum litterarum notis*. Ritschl Rhein. mus. n. f. XIV p. 389 foll. emends and explains some very singular old hexameters, containing a series of *sortes*, such as these must have been. *fatigant*: II 1172 *caelumque fatigat*. 1242 *locis adf. adh.* seems not unlike Aen. IX 536 *Et flammam adfixit lateri*. 1244 *his* i. e. aliis, with reference to 1240 *partim*. 1246 *penetratum*, because *penetro* and *penetro me in* are equally in use. 1250 *Succipiunt*: V 402 *succepit* A: Ribbeck admits this form four times into the Aeneid with more or less ms. authority; and Servius thrice repeats that *succipio* is the old form. *ingravescunt* seems not to occur elsewhere in this peculiar

sense of becoming big with child. 1252 *unde* i.e. eas ex quibus. *puellos*: Nonius p. 158 quotes this v. and Ennius Lucilius Varro for this form. 1254 *fecundae*: the wife may be able to bear and the man to beget; but they may not suit one another; though in another marriage the man may have children. 1259 *līquidis et lĭquida*: see n. to II 452: the juxta-position here seems almost as bold as Homer's Ἆρες Ἄρες which Martial IX 11 15 thinks utterly impossible in Latin: Bekker finds it so in Homer as well: but the poets seem often to feel a pleasure in such contrasts of quantity: III 145 *Idque sibī.. id sibĭ gaudet*; Tib. II 3 27 *Delos ubī.. ubĭ Delphica Pytho*; Martial himself II 18 1 *Captŏ tuam, pudet heu, sed captō*: with a short vowel before a mute and liquid this variation is even more frequent: IV 403—406 *sūpra, sŭpra, sūpra*; 1222 *Quae pătribus pātres*, as Aen. II 663 *Gnatum ante ora pătris, pātrem qui*: in these three instances too as well as in that just given from Martial the lengthening as well as the shortening is in the thesis of the foot: V 1163 *sācra, săcra*; Ov. met. XIII 607 *volŭcri mox vera volūcris*; V 129 *ditissimus āgri, Dives ăgri*; Hor. od. I 32 11 *Et Lycum nīgris oculis nĭgroque*: Theocr. VI 19 τὰ μὴ κᾶλὰ κᾰλὰ πέφανται; VIII 19 ἶσον κάτω ἴσον ἄνωθεν; and Callimachus has the very same variations; for which they and their Alexandrine compeers are bitterly assailed by Cobet var. lect. p. 396: but they have greater crimes than these to answer for: Theocr. XVIII 51 Εὐτεκνίαν, Κύπρις δὲ θεὰ Κύπρις. 1262 *extenvantur*: so *tenvis* he uses oftener than *tenŭis*; but I 317 *adtenŭari*. 1268 *opu' sunt motus*, and 1277 *quod nil opus*: see n. to I 1051. 1271 *exossato*: Appuleius twice uses *exossa saltatio* in the same sense. 1272 *Eicit*: III 877 *et eicit*, where see note. 1274 *Idque moveri*: comp. III 569 *moventur Sensiferos motus quos.. haut possunt.. moveri*; for the neut. pron. is equivalent to a cognate accus. 1277 is there any sarcasm in these words, and does the poet allude to the already felt scarcity of children?

1278—1287: often by her own virtues, from no divine interposition, a woman without personal attractions will endear herself to her husband. 1278 *Nec divinitus*: οὐδὲ θεόπεμπτον εἶναι τὸν ἔρωτα is a saying of Epicurus recorded in Diog. Laer. X 118. 1282 *insuescat te*: VI 397 *An tum bracchia consuescunt*; V 1368 *fructusque feros mansuescere terram*, a conjecture of Lach. but I think a certain one: Hor. sat. I 4 105 *insuevit pater optimus hoc me*; II 2 109 *adsuerit mentem corpusque superbum*; Aen. VI 832 *ne tanta animis adsuescite bella*; Varro de re rust. II 1 4 *silvestria mansuescerent*. The passive partic. *suetus adsuetus desuetus consuetus mansuetus* are much more in use: see n. to III 772. 1286 *guttas* cet.: a common-place employed by Tibullus Propertius Ovid: comp. too I 313 *Stilicidi casus lapidem cavat*.

BOOK V

1—54: who, o Memmius, can adequately extol the man who discovered this system of true wisdom? not Ceres, not Liber, far less Hercules can be compared with him: they only gave to men physical comforts or freed them from physical dangers: he bestowed on us the blessings of right reason and freed us from the far worse terrours of superstition and of the passions: surely then he deserves to be ranked as a god, the more so that he first explained the true nature of the gods. 1 *Quis potis* cet.: Enn. ann. 178 *Quis potis ingentis oras evolvere belli? dignum, pro*: Cic. in Caec. div. 42 *timeo quidnam pro offensione hominum... et exspectatione omnium et magnitudine rerum dignum eloqui possim*: nay Cicero's words may have been in the poet's mind: Sall. Catil. 51 8 *si digna poena pro factis eorum reperitur*; and perhaps Hor. epist. I 7 24 *Dignum praestabo me etiam pro laude merentis*. *poll. pect.*: I 414 *Lingua meo suavis diti de pectore fundet*: IV 914 *Vera repulsanti discedas pectore dicta*; and just below 5 *Pectore parta suo* cet.: to an epicurean *pectus = cor = mens* or *ingenium*. 2 *Condere*, the technical word, even in prose: see Forc.: hence Virg. ecl. II 4 *haec incondita*. 5 *parta* and *quaesita* appear to be synon.: see n. to IV 274. 7 *cognita*: Tib. IV 11 *cognita virtus*; Prop. IV (V) 6 38 *Auguste Hectoreis cognite maior avis*. 8 *deus* cet.: Virg. ecl. V 64 *deus deus ille, Menalca*: see n. to II 1092, and comp. Cic. Tusc. disp. I 48 quoted there. *incl. Memmi*: see n. to II 1080. 10 *appell. sap.*: Enn. ann. 227 *Nec quisquam sophiam, sapientia quae perhibetur, In somnis vidit priu' quam iam discere coepit*, imitated by Afranius in Gell. XIII 8 *Sophiam vocant me Grai, vos sapientiam*. *quique per artem*: Virg. geor. I 122 *primusque per artem Movit agros*; Aen. X 135 *quale per artem*; Manil. I 51 *primique per artem* cet.; for *princeps* belongs also to *quique per artem*: *artem* = rationem 'quam licet, si volumus, appellemus artem' says Cic. de orat. II 148. 12 *tranquillo*: *tranquillum* is the proper term for a calm used by Cicero and the best writers, and often metaphorically as here: so Livy III 14 6 *nec cetera modo tribuni tranquillo peregere*; XXVIII 27 11 *ita aut tranquillum aut procellae in vobis sunt*; Ter. eun. 1038 *esse amorem omnem in tranquillo*: Lucil. in Nonius p. 388 has *te in tranquillum ex saevis transfer tempestatibus*: perhaps *vitae* should be read before *tranquillum*, thus making the resemblance with Lucr. still nearer: comp. also Plut. max. c. princ. viris 3 p. 778 C Ἐπίκουρος τἀγαθὸν ἐν τῷ βαθυτάτῳ τῆς ἡσυχίας ὥσπερ ἐν ἀκλύστῳ λιμένι καὶ κωφῷ τιθέμενος. 13 *Confer enim*: so Cicero *attende enim paulisper*; *audiamus enim Platonem* and the like. *divina antiqua reperta*: 490 *Altaque caeli*, *fulgentia*

templa; 24 *Nemeaeus magnus hiatus Ille*; 32 *Aureaque Hesperidum fulgentia mala*; 295 *claraeque coruscis Fulguribus pingues taedae*; 1063 *Inritata canum magna Mollia ricta, duros nudantia dentes*: so *candens lucidus aer, miserandum magnopere unum Aerumnabile*; also 1436 *magnum versatile templum*; II 7 *bene quam munita tenere Edita doctrina sapientum templa serena*: see also n. to I 258 *candens lacteus umor*: two participles are not uncommon, as IV 1177 *lacrimans exclusus*, 1180 *iam ammissum venientem*. 14 *Namque* or *nam* introducing the details of a general statement is common enough in Latin, though less so than γάρ in Greek. *Ceres..mort. inst.*: probably imitated by Virg. geor. I 147 *Prima Ceres ferro mortalis vertere terram Instituit*; yet the exact force of *instituisse* in Lucr. is not very clear: is it merely 'introduced and set up'? as Cic. ad fam. XIII 48 *cum primus in eam insulam quaestor veneris, ea te instituere quae sequantur alii*: or does it imply the planting also of the vine and sowing of the corn? as Cic. de lege agr. II 67 *iugera ccc, ubi institui vineas possunt*: Aen. VI 69 *Tum Phoebo et Triviae solido de marmore templum Instituam festosque dies de nomine Phoebi*, the word seems to have a similar literal and metaphorical sense. 15 *Vitigeni* recurs VI 1072: *vitigineus* is the usual form of the adj.

24 *Nemeaeus hiatus leonis*: see n. to I 474 *Alexandri Phrygio sub pectore*. 25 with rhythm comp. Virg. geor. III 255 *Ipse ruit dentesque Sabellicus exacuit sus*. 27 *vallata col.*: ciris 79 *Piscibus et canibusque malis vallata repente est*. 28 *tripectora* seems to be a ἅπαξ λεγόμ.: Virgil and others have *tricorporis*. 29 unless *Stymphala* agrees with a subst. in the lost v., it is an unusual form, like 31 *Ismara*. 30 *spir. n. ig.*: Virg. geor. II 140 *tauri spirantes naribus ignem*; Aen. VII 280 *geminosque iugalis..spirantis naribus ignem*: Eur. Alc. 509 Hercules promises to bit them εἰ μή γε πῦρ πνέουσι μυκτήρων ἄπο. 31 *Thracis*, the usual epithet to distinguish him from the other Diomede of whom Virg. Aen. I 752 says *Nunc quales Diomedis equi*: comp. Eur. Alc. 499 Θρῃκὸς τέτρωρον ἅρμα Διομήδους μέτα: Ovid met. IX 194 *Quid quod Thracis equos humano sanguine pinguis*, in the midst of a like enumeration of Hercules' labours. *que* and *atque*, or *que* and *et* coupling two words as here, appear not to be found in Cicero or Caesar; but *que* and *et* are thus used by Terence Sallust Val. Maximus Livy and the later writers; and Wagner quaest. XXXV 23 gives several instances from Virgil of *que* and *atque* thus used, as Aen. VIII 486 *Componens manibusque manus atque oribus ora*. 33 *Asper* cet.: Macrob. sat. VI 1 30 compares Aen. IX 794 *Asper acerba tuens retro redit*: comp. too geor. III 149 *Asper acerba sonans*; Aen. VIII 330 *asperque immani corpore Thybris*. 35 *pelage* recurs VI 619: *mele* he also twice uses. *severa*: 1190 *noctis signa severa*; IV 460 *severa silentia noctis*; Virg. geor. III 37 *amnemque severum Cocyti*: *severus* seems to

imply what is cold and cheerless, what is contrary to or away from the warm genial sunshine. 36 *audet* i. e. adire, understood from *adit*, unless *quo audet* resemble Aen. II 347 *audere in proelia*. 40 *scatit*, as VI 891; and *scatĕre* three times. 41 *silvasque profundas* are much the same as Virg. geor. II 391 *saltusque profundi*: the *saltus* are the lawns and long defiles sweeping down from the hills to the low valleys and plains; the *silvae* represent these more or less covered with wood: *nemora* and *silvae* are often found without distinction of meaning; but often too, as here, they are used together, even by Cicero; and then Servius to Aen. I 310 appears to define them correctly, '*nemus* composita multitudo arborum, *silva* diffusa et inculta': thus Ovid met. I 568 *Est nemus Haemoniae, praerupta quod undique claudit Silva: vocant Tempe*: this Livy XLIV 6 calls a *saltus*. Whoever has come Ἀρκαδίας ἀπὸ δειρᾶν καὶ πολυγνάμπτων μυχῶν, will understand this v. of Lucr.: the *silvae* ran up to and covered much of the *magni montes* of Greece and south Italy: 955 and 992 are nearly repetitions of this v.: comp. too 1386. 42 *est nostra pot.*: see n. to II 53 *sit haec rationi' potestas*. 43 *purgatumst pectus*: VI 24 *Veridicis igitur purgavit pectora dictis*. 44 *ingratis*: see n. to III 935 *gratis*. *quae praelia insinuandum*, his favourite archaism, as 42 *Quae loca vitandi*: see n. to I 111. 45 *scindunt* cet.: III 994 *Aut alia quavis scindunt cuppedine curae*. 47 *spurcitia* would seem to mean filthy lust: so Martial *spurcas lupas, spurcae Ledae* of harlots; and Plaut. capt. 56. *spurcidici versus inmemorabiles*. It may however be αἰσχροκέρδεια, sordid avarice: so Martial IV 56 3 *Sordidius nihil est, nihil est te spurcius uno, Qui potes insidias dona vocare tuas*; Cic. Verr. (2) I 94 *homo avarissime et spurcissime*: Nonius p. 393 gives as the first meaning of *spurcum*, *saevum sanguinarium*. 48 *lux. des.* found together Sall. Catil. 53 5 *postquam luxu atque desidia civitas corrupta est*. *desidiae* is also plur. Aen. IX 615 *Desidiae cordi*: III 142 *Laetitiae*; the number of *luxus* it seems not possible to tell. 49 foll. surely then the man who has subdued all these more frightful monsters, and delivered the mind, not the mere body, by reason and not by mere force, deserves to be deemed a god, if Hercules gained that distinction for the lesser exploits. 51 *numero divom esse*: 'post *numero* lege *in*' Bentl. who refers to 123 *Inque deum numero* and 180 *Nec fuit in numero*: and so I 446 *rerum in numero relinqui*, 691 *in numero rerum constare*; and so Cicero *in numero esse deorum, hostium, iudicum* and the like, or *ex numero*: de nat. deor. I 43 Velleius, like Lucr., says *venerari Epicurum et in eorum ipso numero, de quibus haec quaestio est, habere debeat*: but pro Archia 31 mss. read *est eo numero, qui semper apud omnes sancti sunt habiti*, where however Halm after Madvig *estque ex eo numero*; and Quintil. *in numero veterum habere*, but inst. III 6 102 *si esset numero alienorum*:

again Cicero says indifferently *esse in loco, in numero*, or *loco, numero parentis*; esse *aliquo* or *in aliquo, nullo* or *in nullo numero*; and this sense easily shades off into the other; and Lactant. inst. III 14 quotes the v. and paraphrases it thus 'qui tamen ob id ipsum deberet *pro deo haberi, quod sapere invenerit*: he strangely supposes Lucr. is praising Thales or Pythagoras. *dignarier* I take to be pass. according to the usage of Cicero and the older writers. *dig. esse* seems an unusual constr., the simple abl. generally following: so 65 *consistere* etc.: the infin. is not usual after *ratio reddunda*, but a gen. or a prepos. or a dependent clause, as 67 foll. 53 *de divis*: 'quippe qui libros singulares scripsit περὶ θεῶν et περὶ ὁσιότητος' Bentl.: Velleius l. l. *solus enim vidit, primum esse deos.* 54 *pandere*: I 55 *rerum primordia pandam*: 126 *rerum naturam expandere dictis.*

55—90: following in his steps I teach the inexorable laws by which all things are bound: having proved the soul to be mortal and shewn how images in sleep cheat the mind, I go on to prove the world to be mortal and to have had a beginning, and to describe how all its parts were formed; what creatures sprang from the earth, what never existed; how fear of the gods fell upon men: the natural courses too of the heavenly bodies I will explain, that men may not fancy they are directed by the gods and be enslaved by religion. 58 *Nec valeant* i. e. quamque non valeant: but perhaps *Nec* rather connects what follows with what precedes in the way illustrated in n. to I 718. *validas valeant*: see n. to I 826 *sonitu sonanti.* 59 *reperta est* i. e. in III. 61 comp. III 605 *Non modo non omnem possit durare per aevom.* 62 *simulacra* cet.: IV 34 foll.; comp. too I 133 *somnoque sepultis, Cernere uti videamur eos* cet.: as far as the general theory of images is concerned, this point can form but a very small part of it; but morally speaking, to an epicurean it is the most important of all, as the great end of physics is to free men from religion and the fear of death: hence the earnestness with which Lucr. insists upon it. 63 *quem vita reliquit* is the same as *qui vitam reliquit*: thus he says both *eum mortis letique potitum* and *quem mors et terra potita est*: Aen. VI 735 *supremo cum lumine vita reliquit.* 64 *Quod superest* begins the apodosis of the sentence which commenced at 55. 65—81: he here enumerates most of the subjects treated of in this book, which do not however all follow in the order observed in this summary. 65 66 these questions are discussed 235—415: 67 *Et quibus—Lunaique globum*: these in 416—508 and 534—563: 69 *tum quae—Extiterint*: this in 783—877: 70 *et quae—natae*: this in 878—924: 71 *Quove modo—nomina rerum*: this in 1028—1090: 73 *Et quibus—divom*: this in 1161—1240: 76 *Praeterea—ratione putemus*: these in 564—770.

67 *Et quibus* cet.: 416 *Sed quibus ille modis coniectus materiai*

Fundarit terram cet. 70 *et quae nullo* cet.: 878 *Sed neque Centauri fuerunt, nec tempore in ullo Esse queunt* cet. 71 *Quove*: see n. to I 57. 72 *vesci*: Nonius p. 415 '*vesci* etiam significat *uti*': he quotes this passage and Aen. I 546 *si vescitur aura Aetheria*; from Pacuvius *arte hac vescimur* and *vescatur armis*; from Attius *armis vesci* and *vesci praemiis*; and Cic. de fin. V 57 *vesci voluptatibus*: *vesci* therefore = frui; and so 857 *quaecumque vides vesci vitalibus auris.* 75 *lacus*, such as the *Ampsancti valles*, 'i. e. omni parte sancti', as Servius says; the lake of Nemi, the 'speculum Dianae' of Aricia; the Avernus, Fucinus, Velinus and others. 76 *solis* cet.: I 128 *solis lunaeque meatus Qua fiant ratione*; Aen. VI 849 *caelique meatus Describent radio.* 77 *flect. nat. gub.*: the metaphor from steering a ship: 107 *Quod procul a nobis flectat fortuna gubernans*; which comes to the same thing, as the epicurean nature is at one and the same time blind chance and inexorable necessity: VI 31 *Seu casu seu vi, quod sic natura parasset*, where *casu* and *vi* are different expressions for the same thing. 82—90 are word for word the same as VI 58—66, the last two vss. recurring again and again: indeed the whole of this paragraph 55—90 in character and manner much resembles VI 26—89, I 54—61, 127—135, IV 26—52 and some others: these are all introductions to what follows and have an awkward constrained unfinished style about them, as if written against the grain in order to complete for the time what was wanting. In our passage of six and thirty lines the first one and twenty form a single long loose ill-assorted ill-constructed sentence; the last nine are word for word repeated elsewhere. All this is another proof that the author left his work in an unfinished state. 82 *qui didicere*: Hor. sat. I 5 101 declares himself one of these: *namque deos didici securum agere aevum*: and if we are to believe him in od. I 34 *Parcus deorum* cet., he proved the truth of Lucretius' *Si tamen interea mirantur* cet.: comp. too Ovid ars I 639 *Nec secura quies illos similisque sopori Detinet.* 87 *dominos acris* cet.: Cic. de nat. deor. I 54 the epicurean Velleius says *inposuistis in cervicibus nostris sempiternum dominum quem dies et noctes timeremus; quis enim non timeat omnia providentem et cogitantem et animadvertentem et omnia ad se pertinere putantem curiosum et plenum negotii deum?* 89 90: see I 76 77.

91—109: well, as to the first question: this world and all its parts had a beginning and will have an end: nay, any moment you may see it all tumbling into ruin; may fortune avert this in our time! 91 *ne te in prom.* cet.: VI 245 *neque te in promissis plura morabor.* 92 *Principio*: see above 64 *nunc huc* cet. where this is the first point he promises to discuss. 93 *nat. triplicem* cet.: here he again emphatically dwells on the three great divisions of the world, which the poets have so often adopted from him as he from others: Ovid met. XII 39 *terrasque*

fretumque Caelestisque plagas, triplicis confinia mundi; trist. II 425 *Explicat ut causas rapidi Lucretius ignis Casurumque triplex vaticinatur opus*, imitated in the epic. de morte Drusi 361 *Ecce necem intentam caelo terraeque fretoque Casurumque triplex vaticinatur opus.* *tria corpora*: Ov. fasti I 105 *et quas tria corpora restant, Ignis aquas tellus*: and with the form of expression *triplicem, tria corpora, Tris species, tria* etc. comp. Cicero's vss. in de div. I 15 *Lentiscus triplici solita grandescere fetu, Ter fruges fundens tria tempora monstrat arandi.* 95 *Una dies* cet.: Ov. amores I 15 23 *Carmina sublimis tunc sunt peritura Lucreti, Exitio terras cum dabit una dies*: comp. too Lucr. 1000 *Una dies dabat exitio*; and for the general thought II 1148 *magni quoque circum moenia mundi Expugnata dabunt labem putrisque ruinas.* 96 *ruet moles* cet.: Ovid met. I 256 *affore tempus Quo mare, quo tellus correptaque regia caeli Ardeat et mundi moles operosa laboret*; Lucan I 79 *totaque discors Machina divulsi turbabit foedera mundi*; Manil. II 807 *Dissociata fluat resoluto machina mundo.* *moles et machina* Ovid l. l. intends to express by *moles operosa*: it is not only a vast mass, but a *machina*, a mass of complex and elaborate construction, formed by nature *daedala rerum.* 100 *ubi adportes*: see n. to II 41 *cum videas.* 102 *iacere indu = inicere*: see n. to I 82 *Indugredi*: these vss. are translated from Emped. 356 Οὐκ ἔστιν πελάσασθ' οὐδ' ὀφθαλμοῖσιν ἐφικτὸν Ἡμετέροις ἢ χερσὶ λαβεῖν, ᾗπερ γε μεγίστη Πειθοῦς ἀνθρώποισιν ἁμαξιτὸς εἰς φρένα πίπτει. 102 *via munita*; as III 498 *et sunt munita viai*: it exactly expresses Empedocles' ἁμαξιτός, a regularly paved carriage-road. *fidēi*: Enn. ann. 342 *plenu' fidēi*: see n. to I 688 *rei.* 103 the *pectus*, in which are the *templa mentis*: IV 624 *Umida linguai sudantia templa*: III 140 *Idque situm media regione in pectoris haeret* explains the expression. 104 *dabit fidem*, for which Cicero says *faciet fidem*; and with him *tribuere fidem* = habere fidem, the very converse of this *dare fidem*: see n. to IV 41. 107 *flect. fort. gub.*: see n. to 77 *flectat natura gubernans.*

110—145: but first let me declare with more than oracular certainty that this world and its parts are not immortal and divine: nay so far from its being impious to say that they are not godlike, they are the most fitting example of what is meant by inanimate and insensible: as we shewed in III, the soul and mind cannot exist away from the body: the world then being without life cannot be divine. 110: here, as Lach. has shewn, the argument is interrupted, and it is again taken up at 235 *Principio* cet.: 110—234 therefore are, like many other passages, subsequent additions: see what is said to II 165—183, where it is shewn that the subject of these vss. is closely connected with those and touches on questions not treated of elsewhere; and comp. especially V 155 *Quae tibi posterius largo sermone probabo*, a promise never

fulfilled. Notice too that while a large proportion of these 125 verses are in the poet's noblest manner, about one third of them are mere transcriptions of vss. from former books, shewing thereby that they were left by him in a provisional and unfinished state. 111 112 = I 738 739, where they are clearly more in place: here they sound somewhat pompous and inflated. 113 *exp. dictis*: Aen. III 379 and VI 759 *expediam dictis*. *doctis dictis*: see n. to II 987. 116 *Corpore divino* cet.: the whole of this reasoning is doubtless directed mainly against the stoics and their *anima mundi*: comp. the stoic Manil. I 247 foll. quoted by Creech, *Hoc opus...Vis animae divina regit* cet.; and Cic. de nat. deor. II where the stoic Balbus discourses so largely on this head: 43 his conclusion is *sequitur ergo ut ipsa* [sidera] *sua sponte, suo sensu ac divinitate moveantur*: comp. with this what Lucr. says 78 *Ne forte haec inter caelum terramque reamur Libera sponte sua cursus lustrare perennis*: Balbus continues *nec vero Aristoteles non laudandus in eo quod* cet. the conclusion being *restat igitur ut motus astrorum sit voluntarius. quae qui videat, non indocte solum, verum etiam impie faciat, si deos esse neget.* Aristotle and the peripatetics whose teaching on these points is notorious, are doubtless therefore joined with the stoics by Lucr. 117 *Gigantum* cet.: the stoics who allegorised everything, doubtless gave this turn to the wars of the giants and Titans with the gods: comp. Cic. l. l. 70. 119 *Qui ratione* cet., as the epicureans, who we have just seen declared the world must one day perish, the stoics of course maintaining its immortality. 121 *notantes* i.e. *ignominia*, like censors or judges. 122 *Quae procul*: Lucr. now takes up the argument: *Quae* cet. = quamvis re vera haec usque adeo cet. 125 *Quid sit* i.e. quale illud sit, quod est. 128—141 with the exception of a word or two at the beginning and end are the same as III 784—797 where they are clearly more in place than here. 145 *vitaliter* appears to be found only here.

146—194: the gods dwell not in the world, but apart in seats fine as themselves: their nature is not sensible to our bodily sense, but only to the finer sense of the mind: again to say that this world was created by the gods and will be eternal, and that it is impiety to gainsay this, is sheer folly: what could induce them to take such trouble? or what harm were it to us never to have been born? whence did the gods get the notion of man, so as to know how to make him? nay, this world and all in it was gradually formed by mere natural causes, as explained already. 146 foll. on the gods of Epicurus more will have to be said to 1161—1241 where he explains how the vulgar notions about the gods arose: comp. too what has been said to II 646 foll. *Omnis enim per se divom natura* cet. and the authorities there cited. That Epic. and Lucr. believed in these gods is certain, as there said: no less certain are the

difficulties in reconciling that belief with their general system. 147 *in mundi part. ullis*: the gods dwelt in μετακόσμια, which Cicero translates by *intermundia*: see n. to III 18 *sedesque quietae.* 149 *animi mente*: see n. to III 615: Velleius in Cic. de nat. deor. I 48 says *hominis esse specie deos confitendum est. nec tamen ea species corpus est, sed quasi corpus, nec habet sanguinem, sed quasi sanguinem....Epicurus autem . . docet eam esse vim et naturam deorum ut primum non sensu sed mente cernatur, nec soliditate quadam*: again in de div. II 40 we have the adversary's sarcastic description *deos enim ipsos iocandi causa induxit Epicurus perlucidos et perflabilis et habitantis tamquam inter duos lucos sic inter duos mundos propter metum ruinarum; eosque habere putat eadem membra quae nos, nec usum ullum habere membrorum*: but as Bentley says in his first Boyle lecture 'if Epicurus and Democritus were in earnest about their philosophy, they did necessarily and really believe the existence of the gods'. 150 *suffugit* has here the common force of the Greek aorist. 151 *contingere* = tangere: 152 *Tangere* cet.: yet though a finer sort of touch, it is, as he shews in III, material touch by which the mind is affected as well as the body. And granting his premisses, as well as what he next says, that their abodes are as fine as their bodies, their existence as he argues in 1161 foll. is known to us only by the images they send to the minds of men: these images must be much finer than the bodies of the gods which emit them: are these images immortal? if not, why are these gods, which are much finer than men and much grosser than their own images, imperishable? a dilemma surely, as they must be intermediate between things alike perishable: these *intermundia* too, as shewn in n. to III 18, are as numerous as the worlds in space, that is to say are innumerable: why are they all imperishable, while numberless worlds are hourly perishing? why do 'some rambling troops of atoms upon the dissolution of a neighbouring world', to use Bentley's words l. l., never come in contact with them? if by their fineness they elude destruction in this or that place through countless ages, can they do so in countless different places through countless ages? but there is no end to such questions: see the last chapters of Cic. de nat. deor. I: the most that can be said is that the stoical or peripatetical theory of gods is open to as grave objections. 155 *Quas tibi* cet.: this promise, as already observed, he has nowhere fulfilled.

156 *Dicere* cet.: again directed against the teleology of stoics and peripatetics: so the epicurean in Cic. de nat. deor. I 23 *an haec, ut fere dicitis, hominum causa a deo constituta sunt?* cet. 158 *Adlaudabile* seems not to occur elsewhere: Ritschl has expelled it from Plaut. Persa 673: *adl.* and *laudare* are designedly brought together. 161 *perp. aevo* is abl. gov. by *fundatum*: founded on, that is, which is to exist for everlasting: comp. edict. Dioclet. Maxim. etc. near beg. *ut nos..in*

aeternum fundatam quietem saepiamus: but it may mean from everlasting, as *tempore infinito* in Cicero quoted to 170. 163 *ab imo ev.*: Aen. II 625 *et ex imo verti Neptunia Troia*: but the words of Lucr. are not very clear; you would expect *ab imo ev. cuncta*, not *summa*; for the *summa* would most readily be upset: Lambinus reads *summam*: is it a concise and inaccurate phrase for *omnia evertere et summa imis mutare*, or the like? 165 for rhythm see n. to II 1059. 168 *quietos*: VI 73 *placida cum pace quietos*; Aen. IV 379 *ea cura quietos Sollicitat.* Velleius in Cic. de nat. deor. I 21 *ab utroque autem sciscitor cur mundi aedificatores repente exstiterint, innumerabilia saecla dormierint.* 170 *At, credo, in tenebris* cet.: so Velleius l.l. 22 *si ut deus ipse melius habitaret; antea videlicet tempore infinito in tenebris tamquam in gurgustio habitaverat.* *vita* is of course the life of the gods: Aen. II 92 *vitam in tenebris luctuque trahebam.* 172 *Nam* refers to the two preceding sentences: 170 171 may well be one of the poet's subsequent additions spoken of in introduction p. 22. 177 see n. to III 843. 178 *blanda voluptas*: so II 966, IV 1263. 180 *in numero*, vitae i.e. viventium. 182 by *ipsa Notities hominum* Lucr. clearly means to express Epicurus' πρόληψις: thus Velleius l.l. 43 in proving the existence of gods from this πρόληψις of gods in the minds of all nations says *solus enim vidit* [Epicurus] *primum esse deos quod in omnium animis eorum notionem impressisset ipsa natura. quae est enim gens aut quod genus hominum quod non habeat sine doctrina anticipationem quandam deorum? quam appellat πρόληψιν Epicurus, id est anteceptam animo rei quandam informationem, sine qua nec intellegi quicquam nec quaeri nec disputari potest*, and 44 *hanc nos habere sive anticipationem, ut ante dixi, sive praenotionem deorum, (sunt enim rebus novis nova ponenda nomina, ut Epicurus ipse πρόληψιν appellavit, quam antea nemo eo verbo nominarat)*: *hanc igitur habemus* cet.: what *exemplum* then had the gods, Lucr. asks, by which they first got this πρόληψις ἀνθρώπων? like a poet, he chooses a simple word in common use, *notities*; just as above and in III he terms the *intermundia* only *sedes*, defining them by various additions. 183 *Quid* cet.: 1049 *Quid vellet facere ut sciret animoque videret.* 186 *ipsa dedit* cet.: 1361 *At specimen sationis.. Ipsa dedit rerum primum natura creatrix.* 187—191 are repeated from 422—426, 192—194 from I 1026 1027, with some changes: another proof of the unfinished state in which these added sections were left; for besides that they are mere repetitions, these last nine vss. are clearly far less to the purpose here than they are in their original places, where they follow as a natural consequence from what has preceded: here they are mere assertion, not connected in argument with what goes before: even in their other positions they are much copied one from the other. 192 *in talis disp. Dec. quoque*: *quoque* clearly

belongs in strictness to *talis*, as that is the word which it brings out in contrast with what precedes: comp. II 581 *Illud in his obsignatum quoque rebus habere Convenit* i.e. Illud quoque cet.; 216 *Illud in his quoque te rebus cognoscere* i.e. Illud quoque cet.; VI 473 *multa videntur Posse quoque e salso* cet.; 577 *Est haec eiusdem quoque magni causa tremoris*; 905 *Hoc igitur fieri quoque in illo fonte.* 193 *meatus* i.e. paths in which their motions go on: it is almost the same then as his more usual *motus*.

195—234: nay, if I did not know the first-beginnings of things, the imperfection of this world would prove to me the gods did not make it for man's use: see after all how small a part of the whole earth he can bring under tillage, and that with the sweat of his brow; and then his labour is often thrown away: look at all the miseries he suffers, dangers by sea and land, diseases, untimely death: compare the helpless baby with the young of other animals. 195—199 are the same as II 177—181 with very slight changes: see notes there: to II 167 it is said that the stoics are here chiefly aimed at with their teleology; see too Cicero quoted to V 156 *Dicere porro hominum causa* cet. of which this is a refutation. 195 *si iam*: see n. to I 968. 198 *nobis* i.e. for our especial service, as 156 *hominum causa*: he goes on to shew how much worse in many respects the condition of man is than that of brute beasts. 200 *impetus*: see n. to IV 416 where it is said that *impetus* seems to denote only size; though Lucr. is ready to allow the revolution of the heavens: 1436 *mundi magnum versatile templum*: yet Cic. de nat. deor. II 97 says *cum autem impetum caeli cum admirabili celeritate moveri vertique videmus.* 202 the rhythm of this v. was compared above with Virg. geor. II 144 *Implevere*: *tenent olea armentaque laeta*: comp. too VI 1140 *Vastavitque vias, exhausit civibus urbem* with geor. III 481 *Corrupitque lacus, infecit pabula tabo*, where all that precedes and follows shews constant imitation of what precedes and follows in Lucr. 204 *duas partis*, τὰ δύο μέρη. 205 *geli casus*: as a poet he makes frost like dew come down from the sky. *geli*: VI 156 *geli fragor*; 530 *vis magna geli*; and 887 even the acc. *gelum*, *quod*: genitives in *i* of words generally of the fourth decl. are common in the old writers: *senati ornati soniti exerciti* and the like. 207 *sent. obd.*: Virg. geor. II 411 *densis obducunt sentibus. ni vis hum.*: ib. I 198 *ni vis humana quotannis* cet.: 208 209 ib. 45 *Depresso incipiat iam tum mihi taurus aratro Ingemere*, II 237 *validis terram proscinde iuvencis*: comp. too *duros iactare bidentis Aut presso exercere solum sub vomere*; and Tib. II 3 6 *Versarem valido pingue bidente solum*: the *bidens* being a heavy two-pronged hoe. 210 211 = I 211 212, except *Si non* for *Quas nos.* 212 *Sponte* cet.: Virg. geor. II 47 *Sponte sua quae se tollunt in luminis oras*, which at the same time imitates 781 *quid primum in luminis oras*

Tollere. 213 *mag. quae. lab.*: ib. I 197 *multo spectata labore*: Macrob. compares with 213—217 Virg. geor. I 118 *Nec tamen, haec* cet. where the turn of phrases is like. 218 *genus horriferum* cet.: Cic. acad. pr. II 120 *cur deus, omnia nostra causa cum faceret, sic enim vultis, tantam vim natricum viperarumque fecerit? cur tam multa pestifera terra marique disperserit?* 221 *vagatur*: comp. Rabirius [? or Varius?] fragm. in volum. Hercul. II col. 5 *Omne vagabatur leti genus, omne timoris.* 222 *proiectus*, the regular term for a castaway. 225 *Nixibus*: Virg. geor. IV 199 *aut fetus nixibus edunt*: Wak. compares Serenus Samon. 1038 *Nudum hominem primum mater natura profudit.* 226 *Vagituque* cet.: St. Austin changes to bitter earnest the bitter irony of the epicurean's *ut aecumst*: he says enarrat. in psalm. 125 10 *poterat ridere prius puer qui nascitur: quare a fletu incipit vivere? ridere nondum novit, quare plorare iam novit? quia coepit ire in istam vitam*: Lear IV 6 carries the 'pathetic fallacy' a step farther and makes the baby cry, not for his own misery, but his neighbour's folly: *Thou knowst, the first time that we smell the air, We wawl and cry... When we are born, we cry that we are come To this great stage of fools*: Pliny nat. hist. VII at beg. takes, as is his wont, the same dismal view: thus 2 *hominem tantum nudum et in nuda humo natali die abicit ad vagitus statim et ploratum, nullumque tot animalium aliud ad lacrimas et has protinus vitae principio*, and so on: Appuleius and Lactantius both copy Lucretius' words. 227 *restet transire*: see n. to I 1005 *restet minus ire.* 228 *At varias* cet. so that instead of things being made *hominum causa* above all, they are less favoured than other creatures, to whom nature is far more bountiful. 233 *Qui* = quibus. 234 *daedala rerum*: see n. to I 7 *daedala tellus*, and for constr. IV 551 *verborum daedala.*

235—246: first then, since earth water air fire are all mortal, the world of which these are the parts should be deemed mortal: the world then had a beginning and will have an end. 235 *Principio*, as was said above, has no connexion whatever with what immediately precedes, but joins on to 109, 110—234 being a subsequent addition of the poet's, as explained in n. to 110 foll. *terrai corpus*, a favourite periphrasis, as *corpus aquae, aquai, Neptuni* and the like. 236 *animae*: see n. to I 715. *cal. vap.*: see n. to II 844. 239 *eodem* [corpore constare] *putari.* 244 *regigni*, and 269 *remanat* in this sense at least, seem not to be found elsewhere. 245 *quoque item*: see n. to III 208 *quoque etiam.* 246 *Principiale* too is a Lucretian word: II 423 *principiali levore* is smoothness of the first-beginnings.

247—260: think not I am begging the question in asserting that earth water air fire are mortal: first as to earth: some of it you see passes away in clouds of dust; some is carried away by floods or rivers eating their banks: again what feeds other things, is usually replenished

in return; and since earth, mother of all things, is also their tomb, the earth wastes and grows again.—In this and the next three paragraphs he shews in turn that earth water air fire all decay. 247 *corripuisse mihi*: Lach. cites Varro de ling. Lat. VII 94 *clepere, id est corripere*: *συναρπάζειν τὸ ζητούμενον* is a very common phrase in Sextus; pyrrh. hyp. I 90 he says *πρὶν ἄρξασθαι τῆς κρίσεως τὰ φαινόμενα συναρπάζουσιν, ἑαυτοῖς τὴν κρίσιν ἐπιτρέποντες.* *arripere* is used by Cicero in a like sense. 250 *rursus* belongs also to *gigni*. 251 *Principio*, to begin with earth. *perusta Sol. ads.*: Wak. compares Ovid her. V 110 *adsiduis solibus usta* and Hor. epod. II 41 *perusta solibus.* 253 comp. Virg. geor. II 217 *Quae tenuem exhalat nebulam fumosque volucris*: Lucr. again 463 *Exhalantque lacus nebulam* cet. 255 *ad dil. rev.*: VI 292 *Atque ita praecipitans ad diluviem revocari*: Cicero thus uses *rem revocare ad* and the like, for *adducere*, where the *re* has no force; as pro Cluen. 136 *cum rem paene ad manus revocasset.* 258 *Redditur* both Wak. and Lach. explain by 'restituitur, retribuitur, recreatur', and the word can have here no other meaning: its force seems to be this 'ex se auget aliud; quod dat, redditur i.e. ipsum sibi redditur': but I can bring no parallel instance. 259 *Omniparens* cet.: Varro de lin. Lat. V 64 *haec enim* Terris genteis omnis peperit et resumit denuo.. *ut ait Ennius*; Orell. inscr. 4417 *mater genuit, mater recepit*; Romeo and Juliet II 3 *The earth that's nature's mother is her tomb*: *What is her burying grave, that is her womb.*. *com. sep.*: Cat. LXVIII 89 *Troia, nefas, commune sepulcrum Asiae Europaque.* 260 and 294 *tibi*: see n. to I 797.

261—272: the same is true of water: fresh supplies are constantly coming to seas and rivers; but the sum remains the same, because as much is taken away by the winds and the sun, and by filtering through the ground, whence the water finds its way back to the river heads. 263 *Nil opus est verbis* i.e. declarare, understood from *declarat*. *mag. dec. aqu.*: 946 *montibus e magnis decursus aquai*; I 283 *magnus decursus aquai*; VI 609 *tantus decursus aquarum.* 264, 284 and 304 *quicquid* = quicque: see n. to II 957. *primum quicquid*: see n. to I 389 *primum quemque.* 266 *verrentes—sol* recurs 388 389: VI 623 *venti.. verrentes aequora.* 269—272 recur with slight difference VI 635—638. 271 *agmine* is thus used by Ennius before and Virgil after him: Enn. ann. 177 *Quod per amoenam urbem leni fluit agmine flumen*: so par. lost VII 305 *where rivers now Stream and perpetual draw their humid train*, and what precedes illustrates Lucr. 272 *pede* cet.: Hor. epod. 16 48 *Levis crepante lympha desilit pede*; culex 17 *Castaliaeque sonans liquido pede labitur unda*; Silius VI 140 *lento pede sulcat harenas Bagrada.*

273—280: the air too is ever changing: for whatever streams off from things, must pass into air; and thus unless the air gave back as

much, all things would become air. 276 *Aeris.. mare*: Wak. quotes from Ennius trag. 6 *omnem pervolat caeli fretum. qui nisi retribuat recreetque, Omnia iam resoluta forent* is the sole instance in Lucr. of such a constr.: Virg. geor. IV 116 *extremo ni iam sub fine laborum Vela traham et terris festinem advertere proram, Forsitan et...canerem*; Tib. I 4 63 *carmina ni sint, Ex umero Pelopis non nituisset ebur*; 8 22 *Et faceret, si non aera repulsa sonent*; Catull. VI 1 *delicias tuas Catullo, Ni sint inlepidae atque inelegantes, Velles dicere nec tacere posses*: in all these cases the clause expressing the condition has the negative, and the certainty of the affirmative is implied; the air does give back, I am coming to the end of my voyage, there are poems, brass instruments do sound, your mistress is unattractive. 280 *Reccidere*: see n. to I 228.

281—305: and so it is with fire too: the sun continually sends out new light, as you may see when clouds intercept it: the light beneath the clouds at once disappears: and thus it is with lights on earth; lamps and the like are constantly sending forth fresh lights, so that the destruction of the old is concealed by the instantaneous production of the new: the same is the case with sun moon and stars. 281 *fons lum.*: 293 *lucis caput ipsum*; par. lost VII 364 *Hither as to their fountain other stars Repairing in their golden urns draw light.* 282 *Inrigat*: IV 202 of the sunlight *caelumque rigare*, V 594 *caelumque rigando Compleat*; Emped. 127 καὶ ἀργέτι δεύεται αὐγῇ; Pindar ol. VI 55 boldly but beautifully Ἴων ξανθαῖσι καὶ παμπορφύροις ἀκτῖσι βεβρεγμένος ἁβρὸν Σῶμα. 291 *primum iac. ful. quemque*: see n. to I 389. 294 *terrestria*: II 386 *ignis Noster hic e lignis ortus taedaque creatus* is opposed to the *caelestem fulminis ignem.* 295 *pend. lychini*, metal lamps suspended from the ceiling: Macrob. sat. VI 4 17 compares with Lucr. Aen. I 726 *dependent lychni laquearibus aureis*, as well as Ennius and Lucilius. 298 *instant, Instant*: see n. to II 955 *vincere saepe, Vincere*; and comp. Cic. Arat. prog. quoted de div. I 14 *Et matutinis acredula vocibus instat, Vocibus instat et adsiduas iacit ore querellas*, which Lucr. seems to have had in his mind. 303 *subortu* seems not to occur elsewhere, at least in this sense: the verb *suboriri* he thrice uses with the same force, that of rising up to supply what is wanting.

306—317: again the hardest things, stones metals and the like are broken up by time: they had a beginning then; else they would not give way after enduring from everlasting. 308 *fessa fatisci* occurred III 458. 309 *protollere* to advance and so defer: Plautus uses it both in its literal sense *protollere manum*, and in its metaphorical *protollo mortem mihi*: Lucr. blends the two. 312 313 comp. II 447 *adamantina saxa Prima acie constant ictus contemnere sueta Et validi silices ac duri robora ferri Aeraque* cet. 314 *perferre patique*: see n. to II 291 *ferre patique*. 316 *pertolerassent* seems not to be found elsewhere.

317 *fragore*: see n. to I 747 *fragori*: the metaphor is clearly from battering the walls of a fortress.

318—323: if as some say the all-environing ether begets all things and takes them back at death, then must it be mortal; for it is thus subject to increase and decrease.—This passage is an argumentum ad hominem: the notion pleases his poetical fancy, and he has already more than once seized on the thought and given to it an epicurean turn: see what has been said to I 250, and especially II 991 foll. which has much resemblance to this, *caelesti sumus omnes semine oriundi*, and 1000 *quod missumst ex aetheris oris* cet.: the consciousness of this prevents him from giving a denial to the theory here; and he contents himself with leaving it as hypothetical: *si procreat* cet. in which there is doubtless irony mixed. The passage is a close paraphrase of Pacuvius 86 *Hoc vide, circum supraque quod complexu continet Terram...Id quod nostri caelum memorant, Grai perhibent aethera Quidquid est hoc, omnia animat format alit auget creat Sepelit recipitque in sese omnia, omniumque idem est pater, Indidemque eadem quae oriuntur, de integro aeque eodem occidunt.* 320 *quod quidam memorant* therefore are Pacuvius and whoever they are whom he follows, be they stoics or scholars of Plato or Pythagoras or Anaxagoras or whoever else chooses to allegorise in a like spirit. Pacuvius himself was probably thinking of Zeno: he says 93 *Mater est terra: ea parit corpus, animam aether adiugat.* 323 *Deminui, recreari*, and thereby to be mortal: III 517 *At neque transferri sibi partis nec tribui vult Inmortale quod est quicquam neque defluere hilum; Nam* cet.

324—350: if the world had no beginning, why did history commence with the wars of Thebes and Troy? nay the world began but lately; and so arts and sciences are still in progress: if it be said all these existed before, but were destroyed by some great catastrophe, then you must the more admit that the world will come to an end: when it suffered so grievously, had the causes been more powerful, it must have perished altogether: thus we all know we shall die, because we have the same diseases as those who are already dead. 326 *fun. Tro.*: Hor. od. I 8 14 *sub lacrimosa Troiae Funera.* 330 *summa*: as he is speaking of our *mundus*, *summa* is here *haec summa* or *haec rerum summa*: see n. to I 1008. 331 *exordia cepit*: Aen. IV 284 *quae prima exordia sumat?* geor. IV 316 *Unde nova ingressus hominum experientia cepit?* 334 *organici* cet.: II 412 *musaea mele, per chordas organici quae . . figurant.* 336 *cum primis* merely strengthens *primus*, first of all, before all others: VI 225 *subtilem cum primis ignibus ignem.* 340 *vexamine* seems not to occur elsewhere: see n. to I 434. 342 *cooperuisse*: see n. to II 1061 *coluerint.* 343 *Tanto quique magis*: see n. to III 700: the argument for the final destruction

of the world is even stronger than the one for its having had a beginning; because if it be liable to such terrible diseases, one of these must some day be mortal according to all analogy. 346 *incubuisset*: so VI 1143 of the plague *Incubuit tandem populo* cet.: Hor. od. I 3 30 *macies et nova febrium Terris incubuit cohors.* 349 *Inter nos*, one with the other, taken all in all. Macrobius' comm. in somn. Scip. II 10 is worth comparing with the above paragraph.

351—379: again that which is everlasting must either be impenetrable like atoms, or impassible like void, or must have nothing without it into which it can pass or out of which destructive forces can come; and this is the case with the universe: but we have shewn that not one of these conditions is true of our world; it is therefore doomed to destruction; and therefore it had a beginning too; for being mortal, it could not have lasted from eternity. 351 *necessust*: see n. to II 710: VI 815 he has *necessis*, gen. of *necesse.* 352 and 364 *solido cum corpore*: see n. to I 755. *respuere ictus*: II 448 *ictus contemnere.* 359 *fit copia*: 371 *Deficit* is the opposite to this: Lach. compares VI 829 *magna mali fit copia circum*; and Enn. ann. 437 *Nec respirandi fit copia.* 361 *sum. summa* cet.: II 303 *Nec rerum summam commutare ulla potest vis. Nam neque, quo possit genus ullum materiai Effugere ex omni, quicquam est extra, neque in omne Unde coorta queat nova vis inrumpere et omnem Naturam rerum mutare et vertere motus*; and see n. to I 1008 *rerum summam*; for *summarum summa* is here the same; and the sum of sums is opposed to 368 *hanc rerum summam* or this *mundus* of ours. 364 *docui* I 329 foll. 368 *Corruere*: the active is rare in this sense: Catul. LXVIII 51 *mihi quam dederit duplex Amathusia curam Scitis et in quo me corruerit genere.* 369 *cladem pericli* is a rare form of expression: comp. 1193 *murmura magna minarum*: *pericli* here and *minarum* there seem to have the force of an epithet: comp. with whole verse VI 657 *Aut alium quemvis morbi per membra dolorem.* 373 *leti* cet.: Ov. met. I 662 *praeclusaque ianua leti.* 375 *patet immani* [hiatu] *et respectat vasto hiatu*: Aen. VI 237 *vastoque immanis hiatu.* 379 recurs 1217.

380—415: again since its chief members contend in such furious civil strife, the world may perish either when fire has overcome water, or water fire: thus as poets fable, fire once was near conquering when Phaeton was run away with by the horses of the sun: this story may represent some real event; as may the flood of Deucalion some temporary victory of water. 381 *pio neq.* i.e. civil war: Aen. VI 612 *quique arma secuti Impia.* 383 *vel cum* cet. should be answered by another *vel*: but the poet gives a different turn to the expression at 386 and never completes the construction: the best Latin and Greek writers have like instances; Lucr. perhaps as few as most; comp. how-

ever II 483 *Nam quoniam* cet. and III 425 *Principio quoniam* cet. and notes there: equally slight changes of constr. are VI 105 *Nam cadere aut* cet.; 302 *Dum venit, amittens...Atque . . portat*: in these two places Lach. unskilfully changes the reading. 386 *Tantum* is the accus. after *suppeditant.* 387 *diluviare* seems to be found only here. 388 389 occurred above 266 267 with slight difference. 392 *spirantes bellum*: Cic. ad Att. XV 11 1 *fortibus sane oculis Cassius, Martem spirare diceres*; ad Q. frat. III 4 6 *in primisque* Ἄρη πνέων *Q. Scaevola*; Petron. sat. 122 *Civiles acies iam tum spirare putares.* 392 393 *certamine, cernere certant.* 393 *Magnis* cet.: Enn. ann. 544 *Olli cernebant magnis de rebus agentes*; trag. 206 *cernunt de victoria.* 394 foll. though they generally contend on equal terms, yet each has once been victorious. *superantior* seems a ἅπαξ λεγόμ.: see n. to IV 961 *divisior, distractior.* 396 *superāt* is the perf.: see n. to I 70 *Inritat animi* and III 1042 *obit.* 397 *Avia*: Ovid met. II 167 *ruunt tritumque relinquunt Quadriiugi spatium,* 205 *rapiuntque per avia currum.* 399 *At pater omnipotens* both in Aen. VI 592 and Ovid met. II 304 begins the description of Jupiter striking a man with lightning; in Ovid it is, as here, Phaeton: Aen. VII 770 *Tum pater omnipotens aliquem indignatus* cet. in like manner introduces the account of his striking down *Fulmine Phoebigenam.* 400 *repenti*: there seems to be no other example of this adj. except in the form *repens.* 402 *aeternam*: he is here speaking as a poet; *ut veteres Graium cecinere poetae. lampada*: 610 *rosea sol lampade*; VI 1198 *nona lampade* i.e. die: used in the same way by Virgil and others. 403 comp. Ov. l. l. 398 *Colligit amentes et adhuc terrore paventes Phoebus equos*: *Colligit* expresses *redegit.* 405 *ut veteres* cet.: II 600 *veteres Graium docti cecinere poetae*; Cic. Arat. 33 *ut veteres statuere poetae*: of the passage in II, which the v. quoted introduces, Mr Grote hist. of Greece I p. 33 n. 3 says 'the fine description given by Lucr. of the Phrygian worship is much enfeebled by his unsatisfactory allegorizing': but this moralising is the very condition of the existence of such passages as that one and the present; he would not and could not otherwise have written them; and to my mind it is extremely interesting to see his intense love of these seductive fancies and the struggle between his instinct as a poet and his philosophical principles. 409 *revictae* = perhaps *victae*; as I 592 *primordia rerum . . aliqua ratione revicta*; but the *re* may here have its proper force. 410 *exustae tor. auris*: Pacuvius 13 *Flammeo vapore torrens terrae fetum exusserit*: Lach. strangely says of this v. as rightly read in the mss. 'ita autem ignem *superare posse,* ut numquam revincatur, Epicurus negat'; when Lucr. says at the beginning of this very passage 382 *Nonne vides aliquam longi certaminis ollis Posse dari finem? vel cum sol* cet.

416—431: 'I will now describe how the various parts of the world were formed: as we said above, it was not by design that atoms framed it; but after many fruitless collisions, they chanced to fall into such motions as produced the world and all that is in it'. 416 *ille* is emphatic, as II 362. 419—431, except only 427, are all found elsewhere: 419—422 *Nam—modis multis* = I 1021—1024: 422—426 *multa modis—creare* = V 187—191: 428 = I 1026: 429—431 = with slight difference II 1061—1063: we meet again here what we have met already in this and former books: this passage which is the preface to one of the grandest parts of the poem is itself ill-constructed and patched up from various sources, shewing once more that the poem was left by its author in an unfinished state and that he had carefully worked up some portions, though he had not yet properly connected them with the rest of the poem. 422 foll. comp. the epicurean passage, taken perhaps from Epicurus himself, in Plut. de plac. phil. I 4 *τῶν ἀτόμων σωμάτων ἀπρονόητον καὶ τυχαίαν ἐχόντων τὴν κίνησιν συνεχῶς τε καὶ τάχιστα κινουμένων εἰς τὸ αὐτό, πολλὰ σώματα συνηθροίσθη καὶ διὰ τοῦτο ποικιλίαν ἔχοντα καὶ σχημάτων καὶ μεγεθῶν.* 423 *plagis Ponderibusque*, by the joint action of which, as so fully shewn in II, the first-beginnings are able to come into collision and union. 430 *saepe*: in II *semper*: both are equally appropriate: *saepe* is on many other occasions and also at the foundation of our world, *Terrai maris* cet.

432—448: then could be seen nothing that now is seen, sun stars earth sea heaven, but a strange chaotic jumble of atoms unable to combine: gradually the different parts of the world began to separate. 432 foll.: comp. Emped. 72 Ἔνθ' οὐδ' ἠελίοιο δεδίσκεται(?) ἀγλαὸν εἶδος Οὐδὲ μὲν οὐδ' αἴης λάσιον δέμας οὐδὲ θάλασσα. 432 *solis rota*: 564 *Nec nimio solis maior rota nec minor ardor Esse potest* shews the *rota* to be the *orbis*: many of the poets, beginning with Enn. ann. 548 *patefecit radiis rota candida caelum*, use the same phrase: see Forc.: but Vitruvius also IX 2 (4) has *plena rota totius orbis, sub rotam solis radiosque* and similar expressions in a technical astronomical description: is there not then an allusion to the wheel as astronomical symbol of the sun? Q. Cicero de XII signis 15 has *ciet rota fulgida solis Mobile curriculum*; Cic. Arat. 281 *rota fervida solis*; and Appul. met. IX p. 647 *cum primum rota solis lucida diem peperit.* 433 *mundi* i.e. caeli, as often. 436 *moles*: Ov. met. I 5 *Ante mare et terras et quod tegit omnia caelum Unus erat toto naturae vultus in orbe, Quem dixere chaos: rudis indigestaque moles*; fasti I 106 *Ignis aquae tellus unus acervus erant*, 111 *Tunc ego qui fueram globus et sine imagine moles*: in both places he was thinking of Lucr. 437 I am not quite clear whether *quorum* goes with *discordia* or *Intervalla* cet. 438 439 *Intervalla—motus* we had above II 726 727, where see notes. 443 *inde loci*:

741 *Inde loci sequitur*; 791 *inde loci mortalia saecla creavit*: it is found in Enn. ann. 22, 522, sat. 3; and Cic. Arat. 327 *Umidus inde loci* cet. 444 *discludere mundum* is explained by 445—448 which are a paraphrase of the words: they mean 'mundi partes separatim locare': there is no real authority for the word in Cic. Tusc. disp. copied out of Forc. by Wak.: Virg. ecl. VI 35 *discludere Nerea ponto* the sense is essentially the same. 447 448 *sorsum*, *Seorsus*: see n. to III 631.

449—494: the heavy particles of earth collected in the midst and squeezed out the lighter atoms of the other parts of the world: ether with its fires first burst forth and collecting on high formed the outermost sphere of the world: between it and earth the rudiments of sun and moon and stars took up their position: the earth, rid of these lighter particles, sank down still more where the bed of ocean is; and these depressions were flooded with salt water; and the more the earth was beaten upon by the heat of ether and the sun, the more it was condensed, and thus increased the ocean by particles of moisture squeezed out of it, and the heavenly elements of fire which flew off from it. 449 *primum* cet.: Plut. de plac. phil. I 4 *ἀθροιζομένων δὲ ἐν ταυτῷ τούτων τὰ μὲν ὅσα μείζονα ἦν καὶ βαρύτατα πάντως ὑπεκάθιζεν κ.τ.λ.* : comp. too Anaxagoras frag. 8 Schorn, 19 Schaub. *τὸ μὲν πυκνὸν καὶ διερὸν καὶ ψυχρὸν καὶ τὸ ζοφερὸν ἐνθάδε συνεχώρησε, ἔνθα νῦν ἡ γῆ· τὸ δὲ ἀραιὸν καὶ τὸ θερμὸν καὶ τὸ ξηρὸν καὶ τὸ λαμπρὸν ἐξεχώρησε ἐς τὸ πρόσω τοῦ αἰθέρος*: Manilius who so often imitates and at the same time tries to refute Lucr. says I 159, as if with reference to *primum*, *Ultima subsedit glomerato pondere tellus*. 454 *mag. moe. mundi* i. e. the ether. 455 *haec e levibus* cet.: Plut. l. l. *ὅσα δὲ μικρὰ καὶ περιφερῆ καὶ λεῖα καὶ εὐόλισθα, ταῦτα καὶ ἐξεθλίβετο κατὰ τὴν τῶν σωμάτων σύνοδον εἴς τε τὸ μετέωρον ἀνεφέρετο.* 458 *erumpens* cet. imitated by Ovid met. I 26 *Ignea convexi vis et sine pondere caeli Emicuit summaque locum sibi legit in arce*, and Manil. I 149 *Ignis in aetherias volucer se sustulit auras Summaque complexus stellantis culmina caeli Flammarum vallo naturae moenia fecit*, and Milton par. lost III 716 *And this ethereal quintessence of heaven Flew upward*, he then goes on to imitate 519—521. 461 *gemm.* cet.: II 319 *herbae gemmantes rore recenti*. 462 *radiati*: 700 *radiatum insigne diei*: it is so used by Ennius Attius and others. 463 *fluv. perennes*: Cic. Verr. IV 107 *aquae perennes*. 466 *subt. nub. cae.*: VI 482 *Et quasi densendo subtexit caerula nimbis*: *quasi densendo* expresses exactly the *Corpore concreto* of this v. and 468, which designates that which has taken a consistence however fine, as these mists and still more the light ether: Ovid met. XIV 368 has a different constr. *Et patrio capiti bibulas subtexere nubes*. 467 *diffusilis* is an expressive *ἅπαξ λεγόμ.* 468 *Cor. concr.* cet.: Virg. ecl. VI 34 in his brief summary of Lucr. expresses these vss. by *et ipse tener mundi*

concreverit orbis, where *mundi* = aetheris. 467—470 are thus clearly expressed in the epicurean passage in Plut. l. l. *ὡς δ' οὖν ἐξέλιπε μὲν ἡ πληκτικὴ δύναμις μετεωρίζουσα, οὐκέτι δὲ ἦγεν ἡ πληγὴ πρὸς τὸ μετέωρον, ἐκωλύετο δὲ ταῦτα κάτω φέρεσθαι, ἐπιέζετο πρὸς τοὺς τόπους τοὺς δυναμένους δέξασθαι· οὗτοι δὲ ἦσαν οἱ πέριξ, καὶ πρὸς τούτοις τὸ πλῆθος τῶν σωμάτων περιεκλᾶτο, περιπλεκόμενα δὲ ἀλλήλοις κατὰ τὴν περίκλασιν τὸν οὐρανὸν ἐγέννησαν.* 468 *circumdatus*: comp. I 87 *circumdata comptus* and 39 *Circumfusa.* 470 *avido complexu* cet.: II 1066 *avido complexu quem tenet aether*; Emped. 185 *αἰθὴρ σφίγγων περὶ κύκλον ἅπαντα*: par. lost III 721 *The rest* [of the ethereal quintessence] *in circuit walls this universe*, whence one might suspect that Milton at the moment took *cetera* for a nomin.: and with this and 500 foll. comp. VII 264 *expanse of liquid pure Transparent elemental air diffused In circuit to the uttermost convex Of this great round*; Shakesp. sonnet 21 *That heaven's air in this huge rondure hems*: Balbus' description Cic. de nat. deor. II 101 of the stoical theory might serve for a commentary on Lucr.: *ultimus et a domiciliis nostris altissimus omnia cingens et coercens caeli complexus, qui idem aether vocatur, extrema ora et determinatio mundi.*

471 *Hunc exordia* cet.: Plut. l. l. *τῆς δὲ αὐτῆς ἐχόμεναι φύσεις αἱ ἄτομοι ποικίλαι οὖσαι, καθὼς εἴρηται, πρὸς τὸ μετέωρον ἐξωθούμεναι τὴν τῶν ἀστέρων φύσιν ἀπετέλουν.* 472 *Interutraque* cet.: Plut. l. l. describes the relation between these bodies and the air more precisely than Lucr. *τὸ δὲ πλῆθος τῶν ἀναθυμιωμένων σωμάτων ἔπληττε τὸν ἀέρα καὶ τοῦτον ἐξέθλιβε· πνευματούμενος δὲ οὗτος κατὰ τὴν κίνησιν καὶ συμπεριλαμβάνων τὰ ἄστρα συμπεριῆγε ταῦτα καὶ τὴν νῦν περιφορὰν αὐτῶν μετέωρον ἐφύλαττε.* 476 *viva* is poetical like his *aeternam lampada mundi* in 403; 514 *aeterni sidera mundi*; and 538 *quibus insita vivit* i. e. terra, a still bolder expression: I 1034 *vivant labentes aetheris ignes.* 480—488 are briefly expressed by Virgil ecl. VI 35 *Tum durare solum et discludere Nerea ponto Coeperit*: Plut. l. l. *κἄπειτα ἐκ μὲν τῶν ὑποκαθιζόντων ἐγεννήθη ἡ γῆ, ἐκ δὲ τῶν μετεωριζομένων οὐρανὸς πῦρ ἀήρ. πολλῆς δὲ ὕλης ἔτι περιειλημμένης ἐν τῇ γῇ πυκνουμένης τε ταύτης κατὰ τὰς ἀπὸ τῶν πνευμάτων πλήγας καὶ τὰς ἀπὸ τῶν ἀστέρων αὔρας* [? *αὐγὰς*] *προσεθλίβετο πᾶς ὁ μικρομερὴς σχηματισμὸς ταύτης καὶ τὴν ὑγρὰν φύσιν ἐγέννα. ῥευστικῶς δὲ αὕτη διακειμένη κατεφέρετο πρὸς τοὺς κοίλους τόπους καὶ δυναμένους χωρῆσαί τε καὶ στέξαι, ἢ καθ' αὑτὸ τὸ ὕδωρ ὑποστὰν ἐκοίλανε τοὺς ὑποκειμένους τόπους*: I have quoted thus largely from this passage, because I believe it to be from the pen of Epicurus. 482 *fossas* poetically for all hollows. 485 *verberibus*: 1104 *Verberibus radiorum. extrema ad limina* is of course the whole outer surface presented to them. 487 *salsus sudor*: Plut. de plac. phil. III 16 *Ἐμπεδοκλῆς ἱδρῶτα τῆς γῆς ἐκκαιομένης ὑπὸ τοῦ ἡλίου διὰ τὴν ἐπιπόλαιον πίλησιν* [*εἶναι τὴν θάλατταν*], and Aristotle meteor. II 3 p. 357 25 observes that the phrase

may suit poetry, but is unfit for natural science: II 465 *Sudor uti maris est* has nothing in common with the notion here. 488 *camposque natantis* recurs VI 405 and 1142; 267 *camposque natare*: Virg. geor. III 198 *campique natantes*; Aen. VI 724 *camposque liquentis*; Enn. ann. 584 and Manil. I 155 *fluctusque natantes*. 493 *neque enim* cet. the rocks could not yield at all; the other parts being more or less dense would sink more or less.

495—508: thus the earth sank to the bottom, and sea air ether were left separate, ether above all, which glides on its even way and mixes with none of the lower elements. 499 *liquidis*: all were pure compared with the earth, though not relatively to ether. 500 *aliis alia* [relicta sunt]. *liquidissimus* cet.: Ovid met. I 67 *liquidum et gravitate carentem Aethera nec quicquam terrenae faecis habentem*. 502 *turbantibus*, 504 *turbare* are neut.: see n. to II 126. 503 *haec Omnia*, all this troubled air that we see here below. 505 *labens* cet.: this view he seems to prefer: so 1436 *mundi magnum versatile templum*; though in the next passage he leaves it an open question, as one beyond the reach of our experience and certain knowledge: 510 *caeli si vortitur orbis*, 517 *possit caelum omne manere In statione*. 507 *Pontos* cet.: Aristotle Pliny and others attest this, and Sen. nat. quaest. IV 2 29 *ob hoc Pontus in infernum mare adsidue fluit rapidus* .. *in unam partem semper pronus et torrens*: Othello III 3 amplifies Lucr.: *like to the Pontick sea Whose icy current and compulsive course Neer feels retiring ebb, but keeps due on To the Propontick and the Hellespont*. 508 a fine example of sound and rhythm adapted to sense.

509—533: the stars may move from various causes: if the whole heaven revolves, then must we say that, while an air presses on each pole and keeps it in its place, the heaven revolves with its stars by a third air which either blows on it above in the direction in which it and its stars are going, or beneath in an opposite direction; so that the whole sphere is thus kept in motion like a waterwheel: if the heaven does not move, then may the stars move because they have in them fires of ether trying to escape and thus driving them on; or an air blowing from some quarter may impel them; or they may move of themselves whither their food invites them: it cannot be told for certain how this goes on in our world; but in the countless existing worlds every one of these causes is in operation; and one must act in this our world; but it is rash to assert that any one must be the sole cause.— This passage too as Lach. has proved stands in no connexion with what precedes and follows: 534 should at once follow 508; and at 774 he makes no allusion whatever to this paragraph: clearly then it is an after addition of the poet's who had observed that he had entirely omitted this question

of the stars, though he had so fully discussed sun and moon: it was left then by him unconnected with the rest, and placed here by his first editor. 510 *Principio*: see n. to 505, and comp. 1436 *mundi magnum versatile templum*. 511 *Ex utraque* cet.: in this case the sphere of heaven must revolve on its axis; this axis therefore must be supported in its position: this is done by an air pressing outside on each pole, and keeping each fixed in its place: but then to put the sphere in motion another force is wanted: this must be a third air; but it may act in two ways, it may blow at right angles to the poles either above the sphere in the direction in which the sphere has to move with its stars, or it may blow underneath in the opposite direction, moving it thus as a stream of water passing under a wheel moves the wheel, that is to say in the direction opposite to its own course. *polum* is the axis of the sphere of heaven, and *utraque pars* is each pole, the north and the south. 514 *volvenda*: 1276 *volvenda aetas*; VI 179 *glans volvenda*: the gerund has the force of a pres. partic.: Enn. ann. 520 *Clamor ad caelum volvendus*; Virg. *volvenda dies*: comp. II 991 *oriundi*. *aeterni*: see n. to 476 *viva*; and comp. Germanicus phaen. 656 *Declivemque trahunt aeterni pondera mundi*. 516 the *haustra* or *austra* belong to the *rotae*: Nonius p. 13 '*austra* proprie dicuntur rotarum cadi ab auriendo': he then cites this passage: they are therefore scoops or basins attached to the wheel to lift up the running water: Vitruv. x 5 (10) *fiunt etiam in fluminibus rotae...circa earum frontes affiguntur pinnae quae cum percutiuntur impetu fluminis, cogunt progredientes versari rotam, et ita modiolis aquam haurientes et in summum referentes..ipsius fluminis impulsu versatae* cet.: the *modioli* answer to the *haustra* of Lucr. and the contrivance gives a good picture of what he means. 522 *aliunde fluens alicunde extrinsecus*, another instance of pleonastical language: *alicunde* is *ab aliquo loco*, the opposite of *aliquo*: so that *ali. alic.* seems to be only *ab aliquo alio loco*, and *extrinsecus* implies the same thing, the whole phrase being simply the contrary of the *inclusi aestus*, the heats shut up in the stars themselves. 524 *euntis* must be the nomin. 524 *euntis*, 525 *pascentis*: see n. to 692 693. 523—525 seems at first sight almost a stoical doctrine; but is merely a poetical mode of saying that the fires of the stars are drawn on by that portion of the ether which provides them the fuel or nutriment they need: three out of the four causes here assigned are given by Epicurus himself in his letter to Pythocles in Diog. Laer. x 92 τάς τε κινήσεις αὐτῶν οὐκ ἀδύνατον μὲν γίνεσθαι κατὰ τὴν τοῦ ὅλου οὐρανοῦ δίνην, ἢ τούτου μὲν στάσιν αὐτῶν δὲ δίνην κατὰ τὴν ἀρχῆθεν ἐν τῇ τοῦ κόσμου γενέσει ἀνάγκην ἀπογεννηθεῖσαν ἐπ' ἀνατολῇ, εἶτα τῇ θερμασίᾳ κατά τινα ἐπινέμησιν τοῦ πυρὸς ἀεὶ ἐπὶ τοὺς ἑξῆς τόπους ἰόντος. 529 *sequor disponere* seems a most unusual constr.: it appears to be much the same as III 420 *pergam*

disponere; and *sequor* to have the force it has I 156 *quod sequimur* i.e. quod persequimur. 532 *vegeat* = faciat ut vigeat: an archaic word. 533 *ped. progred.*: V 1453 *Paulatim docuit pedetemtim progredientis.*

The last eight verses are to be noticed, as bearing not only on what precedes, but also on what follows in this book about the sun and moon, and in the sixth about thunder clouds and other celestial phenomena. On comparing Epicurus' letter to Pythocles in Diog. Laer. x 84 foll. it will be found that master and pupil are in precise agreement on this as on most matters. The contempt which Epicurus had for astronomers and other system-mongers and the doctrine he held with regard to *μετέωρα* is one of the most curious features of his philosophy. Whatever could be brought to the test of sense and was confirmed by it was true; all opinions again which could not be brought to such test and at the same time were not contradicted by it were to be held to be equally true. Now to apply this to the present question: he says l.l. 86 it is a certain truth that the universe consists of body and void and that atoms are indivisible: so with all things *ὅσα μοναχὴν ἔχει τοῖς φαινομένοις συμφωνίαν, ὅπερ ἐπὶ τῶν μετεώρων οὐχ ὑπάρχει· ἀλλὰ ταῦτά γε πλεοναχὴν ἔχει καὶ τῆς γενέσεως αἰτίαν καὶ τῆς οὐσίας ταῖς αἰσθήσεσι σύμφωνον κατηγορίαν. οὐ γὰρ κατ' ἀξιώματα κενὰ καὶ νομοθεσίας φυσιολογητέον, ἀλλ' ὡς τὰ φαινόμενα ἐκκαλεῖται*, and then he goes on to give this reason, *οὐ γὰρ δὴ ἰδιολογίας καὶ κενῆς δόξης ὁ βίος ἡμῶν ἔχει χρείαν, ἀλλὰ τοῦ ἀθορύβως ἡμᾶς ζῆν.* His doctrines then of body and void and the nature of atoms are certain truths which admit of but one explanation because every phenomenon here on earth attests them, and by most certain induction and reason they can be extended to the whole universe, alike to what is below and what is beyond our sense. Again it is a certain truth that the sun is really about the same size as it appears to us to be: see Epic. l.l. 91, Lucr. V 564—591: because from the experiments you can make with fire here on earth and the fact that so long as it is visible it does not diminish in size, but sooner indeed loses its brightness, you can by reason and induction apply these facts to the sun and the stars. Again that our world was formed nearly in the manner just described by Lucr. is true, because earth water air fire of which it is composed always do and must in like circumstances act in the way they are there represented as acting. But to say that the stars and the sun must move from some one controlling cause, or that eclipses can admit of only one explanation, or that lightning and clouds can be formed in only one way is a vain unphilosophical assumption, since they are beyond our powers of observation and there are many ways of explaining them equally probable, to which *οὐδὲν τῶν φαινομένων ἀντιμαρτυρεῖ*, or *οὐθὲν τῶν ἐναργημάτων διαφωνεῖ* and the like: you must not then fear *τὰς ἀνδραποδώδεις τῶν ἀστρολόγων τεχνιτείας*: to give one explanation *καθῆκόν ἐστι τοῖς*

τερατεύεσθαί τι πρὸς τοὺς πολλοὺς βουλομένοις, nay it is *μάταιον*, and even *μανικόν*. Well then all the possible reasons which Lucr. has just given of the motion of the stars are equally unrefuted by sense; are equally true therefore; and though only one of them may apply to our world, yet in the countless worlds, like and unlike ours, existing in the universe they all may and must find their place, l.l. 94 ἐὰν μή τις τὸν μοναχῇ τρόπον κατηγαπηκὼς τοὺς ἄλλους ὡς κενοὺς ἀποδοκιμάζῃ, οὐ τεθεωρηκὼς τί δυνατὸν ἀνθρώπῳ θεωρῆσαι καὶ τί ἀδύνατον, καὶ διὰ τοῦτ' ἀδύνατα θεωρεῖν ἐπιθυμῶν.

534—563: the earth remains at rest in the midst of the world, because its weight gradually diminishes and below it is another nature closely connected with the air above the earth: thus the whole forms as it were an organic whole, and one part does not weigh down another any more than one member of the body another member, the whole having been united and working together since its first formation: see too how the light soul sustains and puts in motion the whole heavy body. 534 *Terraque*: Lucr. does not tell us what the shape of the earth is; but he must have conceived it as presenting a surface more or less flat both above and below. 535 *Evanescere* cet. i.e. below on the under-surface: *evanescere et decrescere*, as 625 *Evanescere, imminui*, seems a decided ὕστερον πρότερον: for the latter must have place before the former. 538 *vivit*: see n. to 476 *viva*: yet it does appear harsh to apply this epithet to the *bruta terra*, the model of *Quid sit vitali motu sensuque remotum*: perhaps he was thinking of it as forming a sort of organic body with the air, like the human body with which he proceeds to compare it. Epic. in Diog. Laer. x 74 says merely καὶ ἡ γῆ τῷ ἀέρι ἐποχεῖται: Plut. de plat. phil. III 15 assigns this to Anaximenes: διὰ τὸ πλάτος ἐποχεῖσθαι τῷ ἀέρι. Pliny nat. hist. II 10 gives an account much resembling that of Lucr.: *spiritus quem Graeci nostrique eodem vocabulo aera appellant, vitalem hunc et per cuncta rerum meabilem totoque consertum; huius vi suspensam cum quarto aquarum elemento librari medio spatii tellurem* cet.: a stoic might perhaps have pointed to his fierce attack on their cosmical system I 1052 *Illud in his rebus longe fuge credere* cet. and argued that after all his mode of supporting his earth in space did not so much differ from theirs: but what he objected to in them was their making the universe finite, our one *mundus* in fact, which he argues could not be held together amid an infinite void: atoms infinite in number are always streaming up on all sides to supply our world. The stoic Manilius I 194 from the earth argues to the *mundus*, his universe: *Nec vero tibi natura admiranda videtur Pendentis terrae debet, cum pendeat ipse Mundus et in nullo ponat vestigia fundo.* 545 *quid obeat* i.e. quod munus obire debeat, what its proper and regular function is.

564—591: the sun, the moon whether it shine by its own or borrowed light, and the stars are about the same size, it may be a very little greater or less, than they appear to us; just as fires here on earth so long as they are visible, do not increase or diminish in size to any great extent. 564 *rota*: see n. to 432. 567 *Adicere*: I 688 *rei quae corpora mittere possit Sensibus et nostros adiectu tangere tactus.* 569 *ad speciem*: see n. to III 214. 571 *mulcent*: III 141 *haec loca circum Laetitiae mulcent.* 572, 581 and 589 *filum*: see n. to II 341. 575 *Lunaque* cet.: you can tell for certain that the moon is of the same size as it looks; but you cannot tell whether its light is its own or borrowed; whereas unphilosophical astronomers assert that its light is borrowed, and that it is thousands of times larger than it appears: see remarks added after 533. *notho*: Catul. XXXIV 15 *notho es Dicta lumine luna.* 578 *Quam* [figura], *qua cernimus, esse videtur.* 583 *ut est* cet. i.e. necesse est videatur nobis e terra ita utcumque est oris notata et quantacumque est. 584 *Quanta quanta*: Donatus to Ter. adel. 394 '*quantus quantus*, id est quantuscumque': comp. *quisquis* = quicumque, *quoquo* = quocumque; *quamquam*, *utut* and the like. 585 is immediately connected with 590 *Scire licet*, 586—589 being a parenthetical illustration from earthly fires. 588 *mutare* neut. as often in prose: see Forc.: *perparvom quiddam* being a cognate neut. 589 *Alteram utram* i.e. maiorem aut minorem: see n. to III 904 for elision: this full form for *alterutram* appears to be very rare. 590 *perquam pauxillo, exigua parte brevique*, as *Perparvom quiddam*, his favourite accumulation of terms to shew the extremely small amount of increase or decrease. The above passage exactly agrees with Epic. l. l. 91 τὸ δὲ μέγεθος τοῦ ἡλίου τε καὶ τῶν λοιπῶν ἄστρων κατὰ μὲν τὸ πρὸς ἡμᾶς τηλικοῦτόν ἐστιν ἡλίκον φαίνεται· (τοῦτο καὶ ἐν τῇ ἐνδεκάτῃ περὶ φύσεως. 'εἰ γὰρ' φησὶ 'τὸ μέγεθος διὰ τὸ διάστημα ἀποβεβλήκει, πολλῷ ἂν μᾶλλον τὴν χρόαν') ἄλλο γὰρ τούτῳ συμμετρότερον διάστημα οὐθέν ἐστι· κατὰ δὲ τὸ κατ' αὐτὸ ἤτοι μεῖζον τοῦ ὁρωμένου ἢ ἔλαττον μικρῷ ἢ τηλικοῦτον ἡλίκον ὁρᾶται· οὕτω γὰρ καὶ τὰ παρ' ἡμῖν πύρα ἐξ ἀποστήματος θεωρούμενα κατὰ τὴν αἴσθησιν θεωρεῖται. καὶ πᾶν δὲ τὸ εἰς τοῦτο τὸ μέρος ἔνστημα ῥᾳδίως διαλυθήσεται, ἐάν τις τοῖς ἐναργήμασι προσέχῃ, ὅπερ ἐν τοῖς περὶ φύσεως βιβλίοις δείκνυμεν. Lucr. doubtless had before him the 11th book of the περὶ φύσεως which Diogenes quotes in the middle of this extract, and of which such scanty fragments are published in the volum. Herculan.: the τὴν χρόαν there is the *claram speciem certamque figuram* of Lucr. Cicero does not lose this opportunity of jeering, as in the acad. pr. II 82, and de fin. I 20 *sol Democrito magnus videtur, quippe homini erudito in geometriaque perfecto; huic pedalis fortasse; tantum enim esse censet quantus videtur, vel paulo aut maiorem aut minorem.*

592—613: the great amount of heat and light proceeding from

so small a sun may be explained in several ways: the sun may be the well-head to which the light and heat of the whole world flows: or the air about it may be of a nature to catch fire: or much unseen fire may exist in the neighbourhood of the visible sun. 594 *rigando*: see n. to IV 202. 598 *Largifluum* seems not to occur elsewhere: there is no authority for the word in the passage of Pacuvius quoted by Cic. de or. III 157. *lumen* is doubtless the object of *erumpere*: see n. to I 724. 604 *etiam quoque*: see n. to III 208. 605 *percipiat*: see n. to IV 729 *percipiunt oculos visumque lacessunt.* 609 *Accedere*: for form see II 1025: for accus. after it comp. Plaut. Stichus 88 *mihi paternae vocis sonitus auris accidit.*

614—649: it is by no means clear how the sun performs its annual course, and how the moon in a month goes through the same journey: Democritus may be right who says that the nearer any body is to the earth, it is carried on less swiftly by the revolution of the heaven: now the moon is nearer than the sun, the sun than the signs of the zodiac: therefore the moon seems to travel faster than the sun, the sun than the signs, because in truth they in their revolution with the heaven catch up the moon which is slowest first, and then the sun: or two airs may blow in turns in cross directions, one of which drives the sun from the summer to the winter signs, the other drives it from the latter to the former: and so with moon and stars. 616 and 640 *flexus* are the same as *metas.* 617 *solstitialis*: the best writers confine this term sometimes to the summer solstice: Cic. de nat. deor. II 19 *solis accessus discessusque solstitiis brumisque cognosci.* 619 *Annua* cet.: Manil. III 515 *Annua quod lustrans consumit tempora mundum*: but comp. this v. and 691 *Propter signiferi posituram totius orbis, Annua sol in quo concludit tempora serpens, Obliquo terras et caelum lumine lustrans* with Cic. Arat. 318 *Orbem signiferum perhibebunt*, 332 *Haec sol aeterno convestit lumine lustrans, Annua conficiens vertenti tempora cursu*: Lucr. we have seen twice uses *aeternus* in this way with poetical inconsistency: and then comp. 644 *Quae volvunt magnos in magnis orbibus annos*, 648 *per magnos aetheris orbes*, 635 *ad signum quodque reverti*, 636 *ad hanc quia signa revisunt*, III 316 *Quorum ego nunc nequeo caecas exponere causas*, I 992 *sub caeli tegmine*, II 663 *sub tegmine caeli*, V 1436 *mundi . . templum Sol et luna suo lustrantes lumine*, 688 *nocturnas exaequat lucibus umbras*, 432 and 564 *solis rota*, 616 *Brumalis adeat flexus*, 640 *Brumalis usque ad flexus*, 612 *qui sit fulgore notatus*, 665 *conficere orbem*, IV 171 *and* VI 252 *caeli complesse cavernas*, with Cic. Arat. 232 *Haec faciunt magnos longinqui temporis annos, Cum redeunt ad idem caeli sub tegmine signum, Quarum ego nunc nequeo tortos evolvere cursus*, 236 *magnos edemus gentibus orbes*, 239 *caeli sub tegmine*, 237 *aeterno lustrantes lumine mundum*, 242 *Tam magnos orbes*, 337 *signa revisunt*,

288 *Exaequat spatium lucis cum tempore noctis*, 281 *rota fervida solis*, 282 *brumali tempore flexus*, 249 *fulgens candore notatur*, 250 *conficit orbem*, 252 *caeli lustrare cavernas*. It is quite evident Lucr. had carefully studied this translation of Cicero; other parts of which are imitated in other parts of his poem.

621 *vel cum primis*, as if this seemed the most plausible theory, where all must be uncertain. 622 = III 371. 624 *cum caeli turbine*: 510 *magnus caeli si vortitur orbis*; which Lucr. also appears to think most probable. 625 *Evanescere, Imminui*: comp. 535 *Evanescere, et decrescere*, and see n. there. 627 *cum poster. sig.*: it is overtaken and passed by one sign of the zodiac after another and thus left with the hinder ones, which pass it in turn, until the whole zodiac has gone by it in the opposite direction to that in which it has appeared to go through the zodiac. 628 *fervida signa* i.e. of the zodiac which are higher and therefore carried on in more rapid revolution. 629 *magis hoc* i.e. lunam magis quam hunc relinqui. 631 *tendere cursum* seems to be no more than *tendere iter*, or *cursu tendere*, which Sallust and Virgil use: Livy XXIII 34 5 has *tendere cursum* and Virg. Aen V 834 *contendere cursum* for a ship keeping on its course. 632 *fertur* cet.: he now passes to the oratio recta, which he had partially adopted in 630 *abest, propinquat*. 636 *ad hanc revisunt*: II 359 *revisit Ad stabulum*, where see note. I do not find Democritus' name elsewhere attached to this theory: Geminus elem. astr. 10, though he condemns it, gives a lucid account of it: λέγουσί τινες, he says; and he illustrates it by this comparison: if twelve runners are going round in a circle at the same pace and a thirteenth is going the same round at a slower pace, he will appear to be running through those behind him, while in truth they are all passing him: the sun or the moon is this thirteenth; the twelve runners the signs of the zodiac which are really passing the sun and moon, while these seem to be going through them in the contrary direction. 637 *aer. . . alter* cet. i.e. duo aeres, alter *Qui queat aestivis* cet. alter *qui reiciat*. 641 *frigoris umbris*: Wak. quotes Virg. geor. III 357 *Tum sol pallentis haut umquam discutit umbras*. 644 *Quae volvunt* cet. refers of course only to *stellas*: Lucr. imitates Cicero quoted above. *volvunt annos* i.e. volvendo faciunt: Cicero less poetically *Haec* [Hae] *faciunt magnos longinqui temporis annos*: Aratus himself 458 Μακροὶ δὲ σφέων εἰσὶν ἑλισσομένων ἐνιαυτοί. 647 *supernis* dat. gov. by *diversas*: Hor. epist. I 18 5 *Est huic diversum vitio vitium*: it is a very common kind of conciseness of expression for *in partis contrarias iis partibus in quas superna eunt*, and resembles III 1038 *eadem aliis sopitu' quietest* and the like. 649 *sidera* here, as above 623, means all the heavenly bodies, sun moon planets fixed stars.

650—655: night comes, either because the sun is extinguished, or,

if that is not so, because he passes beneath the earth in the same way as he passed above it.—In this and the following paragraphs he leaves you your choice between the hypothesis that the sun dies daily and a new one takes its place in the morning, and theories more resembling the ordinary belief of astronomers; experience being unable to decide: just so his master in Diog. Laer. x 92 ἀνατολαὶ καὶ δύσεις ἡλίου καὶ σελήνης καὶ τῶν λοιπῶν ἄστρων καὶ κατ' ἄναψιν γίνεσθαι δύνανται καὶ κατὰ σβέσιν.. .. καὶ καθ' ἑτέρους δὲ τρόπους, ὥστε τὰ προειρημέν' ἀποτελεῖσθαι· οὐδὲν γὰρ τῶν φαινομένων ἀντιμαρτυρεῖ κ.τ.λ. 652 *efflavit lan. ignis*: comp. 758 *Solque suos etiam dimittere languidus ignis* cet. and II 832 *prius omnem efflare colorem*. *efflare* therefore = dimittere, not its usual sense. 653 *itere*: on the other hand VI 339 *itiner*: *iteris* or *itere* appears to be used by Naevius Pacuvius Attius Varro; *itiner* by Ennius Pacuvius Attius Manilius I 88.

656—679: daylight returns at stated hours, either because the same unchanged sun passes under the earth and comes above it again, or because the fires of a new sun collect every morning at the proper time: this may well be; for many things, such as puberty in man, come at a certain time; and many things such as snow rain lightning return pretty regularly: so it has been from the beginning and so it continues to be.—The alternative here allowed is the same as that given in the preceding passage: see Epicurus there cited: the old sun returns, or a fresh one is born every day. 659 *Anticipat* appears clearly to govern *caelum*: comp. Cic. ad Att. VIII 14 2 *dices, quid igitur proficis qui anticipes eius rei molestiam quam triduo sciturus sis?* 663 *Idaeis* cet.: Diodorus Sic. XVII 7 6 gives the same curious story more fully than Lucr.: the Trojan Ida is spoken of: the stoic Cleomedes de subl. II.87 scoffs at this notion of Epicurus: καίτοι πρὸς ἅπασι τοῖς εἰρημένοις ἀτοπώτατοις οὖσι ἔτι καὶ τὰ ἄστρα ἀπεφήνατο ἀνατέλλοντα μὲν ἐξάπτεσθαι, δυόμενα δὲ σβέννυσθαι, and he cleverly remarks that this is like saying that men while they are seen are alive; as soon as they are out of sight are dead. 673 *inpubem*: 888 *iuventas Occipit et molli vestit lanugine malas*; Aen. VIII 160 *Tum mihi prima genas vestibat flore iuventas*. 674 *pariter malis*: I 88 *Ex utraque pari malarum parte profusast*. 676 *Non nimis* in this sense is common enough in Cicero. 678 *Atque ita* cet. is like Epicurus' expression l.l. 92 κατὰ τὴν ἀρχῆθεν ἐν τῇ τοῦ κόσμου γενέσει ἀνάγκην ἀπογεννηθεῖσαν. 679 *Consequē*: comp. n. to I 560 *relicuo*, of which the principle is the same; and see Lachmann's very learned note: he shews that *adsecuē* is used more than once by Plautus: the old writers never contracted the last two syllables into one in any of these words, any more than in *ingenuus perpetuus ambiguus* and the like.

680—704: days and nights lengthen and shorten time about, either

because the sun continuing the same chooses to run in unequal curves above and below the horizon, his course above being as much more or less than a semicircle, as his course below is less or more, until at each equinox the two are equal: all this you may see marked on a map of heaven: or else the air is denser in some parts than in others, so that he travels more slowly through the former; and thus the winter nights are longer: or else a new sun is always born, and in successive parts of the year his fires collect more or less quickly and so rise in particular quarters.—Again three courses are open to your choice, the first most resembling the theory of vulgar philosophers. 681 *cum sumant*: see n. to II 41 *cum videas*. 682 *sol idem*, as 658. 683 *amfractibus*: this word is used by Cicero more than once for the annual course of the sun: see Forc.: but Lucr. here employs it for the unequal daily curves it makes above and below the horizon: *amfr.*: I 718 *anfractibus* with n. 686 *relatus*: if the other part is from east to west, *relatus* expresses the return from west to east. 687 *anni Nodus* must here mean the intersection of the ecliptic and equator at the two equinoxes, though *nodus* in astronomical Latin and σύνδεσμος in Greek have also other meanings: Cic. Arat. 287 *In quo autumnali atque iterum sol lumine verno Exaequat spatium lucis cum tempore noctis*. 689 *cursu* i. e. solis. *medio* governs *flatus*: Cic. in his Aratea often has *aurae aquilonis*, *austri*, and the like to denote the point from which the wind blows, as Lucr. here uses *flatus*: 280 *a clarisonis auris aquilonis ad austrum Cedens*, 272 *ab infernis austri convertitur auris*, 253 *Quorum alter tangens aquilonis vertitur auras*: Lucr. has probably taken the notion from him. When the sun is midway between the two solstices, the heaven *Distinet aeq. discr. metas*: 617 *Cancri metas solstitiales* was the tropic of cancer; and it would be natural therefore to take *metas* here for the two tropics, as editors have generally done. But the sentence is then a sheer truism, when the sun is midway between the tropics he is midway between them. Lucr. has been speaking of the inequality of day and night and accounting for it by the path of the sun, *imparibus currens amfractibus*, *in partis non aequas dividit orbem*, until *anni Nodus nocturnas exaequat lucibus umbras*: here too I take him to be speaking of the daily revolution of the sun, when day and night are equal. *metas* can of course be used for the points where he rises and sets; as Ovid met. III 145 *Et sol ex aequo meta distabat utraque*: the heaven keeps his two goals, the points where he rises and sets, at an equal distance from north and south, i. e. speaking roughly he rises and sets due east and west. 690 *aequato discr.*: he no longer *in partis non aequas dividit orbem*. 691 *sign. orbis*: Cic. Arat. 317 *Zodiacum hunc Graeci vocitant nostrique Latini Orbem signiferum perhibebunt nomine vero*: the same name he and others give to it in prose as well: 712 *signorum per orbem*. 692

serpens, 693 *lustrans*: see notes 1 for three other instances in which Lach. has corrupted his author from a vain objection to two participles in such a connexion as this: Cicero in his Aratea again and again has examples of this, and in the parts most imitated by Lucr. as 237 *Quattuor aeterno lustrantes lumine mundum, orbes stelligeri portantes signa feruntur, Amplexi terras caeli sub tegmine fulti*: 260 *recedens, devitans*; 264 *consistens, distinguens*; 332 *lustrans, conficiens*; 379 *depellens, pandens*; progn. fr. 3 *Cana fulix fugiens, clamans, fundens*: Lach. in support of his violent and clumsy changes has these words 'nam via solis obliqua est, totus obliquus zodiacus, lumen solis nequaquam semper obliquum est'; the point of which so far as Lucr. and the latitude of Rome Berlin or Cambridge are concerned I have in vain attempted to see: with 692 and 693 *lustrans* comp. Manil. III 515 *Annua quod lustrans consumit tempora mundum*. 699 *noctes* cet.: Virg. geor. II 482 *vel quae tardis mora noctibus obstet*; if the meaning indeed be the same. 700 *radiatum*: 462 *radiati lumina solis*. *insigne*: Cic. de nat. deor. I 100 *cum ipsum mundum, cum eius membra, caelum terras maria, cumque horum insignia, solem lunam stellasque vidissent*. 701 *Aut etiam* cet.: he must provide as usual for the hypothesis that a fresh sun is born every day. *sic* refers of course to 696 *quia crassior est* cet. 703 *certa parte*: a particular quarter which varies every day throughout the year. *certa desurgere parte*: Hor. sat. II 2 76 *ut pallidus omnis Cena desurgat dubia*; I 4 31 *nequid Summa deperdat metuens*; II 2 105 *Non aliquid patriae tanto emetiris acervo*: Lucr. himself II 703 *egigni corpore vivo*; VI 761 *quibus efflant causis*. 704 see what is said in notes 1 to prove that a v. is here lost: unless it be so, there is nothing to indicate that he is speaking of the daily creation of a new sun, as he manifestly must be doing: comp. too the similar way in which he concludes his discussion of the moon in the next paragraph, 748—750 *Quo minus est mirum si certo tempore luna Gignitur et certo deletur tempore rusus* cet. Among those who thus 'seem to speak the truth' was Heraclitus, who also held like Epicurus that it was εὖρος ποδὸς ἀνθρωπείου.

705—750: the moon may borrow its light from the sun, increasing as it recedes from him, until, when directly opposite, it shews its full face; and again diminishing as it again approaches: in this case the moon must be a round ball moving below the sun: it may shine too with its own light, and its partial or total concealment may be caused by an opaque body invisible to us getting between it and us in various ways: or thirdly it may be a ball half bright half opaque which presents to us all these various phases, as the Chaldees assert in opposition to the first hypothesis, that of the astronomers: or lastly a new moon may be born daily, each successively presenting a different phase: thus many things, for instance the four seasons, come round in regular order.—

Epic. l. l. 94 reasons in just the same way, *κενώσεις τε σελήνης καὶ πάλιν συμπληρώσεις καὶ κατὰ στροφὴν τοῦ σώματος τούτου δύναιντ' ἂν γίνεσθαι καὶ κατὰ σχηματισμοὺς ἀέρος ὁμοίως, ἔτι τε καὶ κατ' ἐπιπροσθήσεις καὶ κατὰ πάντας τρόπους καθ' οὓς καὶ τὰ παρ' ἡμῖν φαινόμενα ἐκκαλεῖται εἰς τὰς τούτου τοῦ εἴδους ἀποδόσεις...ἔτι τ' ἐνδέχεται τὴν σελήνην ἐξ ἑαυτῆς ἔχειν τὸ φῶς, ἐνδέχεται δὲ καὶ ἀπὸ τοῦ ἡλίου· καὶ γὰρ παρ' ἡμῖν θεωρεῖται πολλὰ μὲν ἐξ ἑαυτῶν ἔχοντα πολλὰ δ' ἀφ' ἑτέρων...ἡ δ' ἔμφασις τοῦ προσώπου ἐν αὐτῇ δύναται μὲν γίνεσθαι καὶ κατὰ παραλλαγὴν μερῶν καὶ κατ' ἐπιπρόσθησιν καὶ κατὰ πάντας τρόπους ὅσοι ἂν θεωροῖντο τὸ σύμφωνον τοῖς φαινομένοις κεκτημένοι.* The reasoning is quite the same as in the preceding sections: any of these theories may be true, and as none can be proved not to be true, none being opposed to sense, all are equally true: any one therefore *μαχόμενος τοῖς ἐναργήμασιν οὐδέποτε δυνήσεται ἀταραξίας γνησίου μεταλαβεῖν*: the attainment of this *ἀταραξία γνήσιος* being the end Epicurus and Lucretius had before them in writing their physics, and not the vain ambition to propagate idle mathematical and other theories. 707 and 724 *Ad speciem* = ad visum: IV 235 *quae poterit res Accidere ad speciem quadrata*; 242 *speciem quo vertimus.* 708 *pleno bene*: this use of *bene* is a favourite one with Cicero. 712 *signorum per orbem*: see n. to 691 *signiferi orbis.* Lucr. here gives a lucid statement of the true cause. 714 *cursus viam*: 1124 *iter viai* and II 626 *iter omne viarum* seem not unlike: Vitruvius IX 2 1 (4 17) *cursum itineris sui peragens.* 715 *Est quare possit* = *est ut possit*, so common in Lucr.: see n. to I 442 *erit ut possint*: it means therefore simply *potest*; and is not used as 730 *sit cur*, where *cur* has its usual force: see also n. to VI 132. Plut. de plac. phil. II 28 mentions Anaximander and Antiphon as holding that the moon shone with its own light; but who hit upon this notion of the parasitical opaque body in order to explain its phases, I don't know. The observant Thales taught that its light was derived from the sun.

720 *si forte* = fortasse, is found in Cicero, as de off. II 70 *in uno illo aut, si forte, in liberis eius manet gratia*: see Madvig emend. Liv. p. 123: it serves therefore here as a connecting particle in passing to a new hypothesis, and is the same as *Est etiam ut versari possit, ut globus* cet. 723 *eam partem* i. e. the *dimidiam partem* just mentioned. 726 *glomeraminis atque pilai* seems a hendyadis for the *globus pilai* of 720. 727 *Babyl. Chald. doct.*: he speaks of the theory of Berosus, of which Vitruv. IX 2 (4) gives a full account: I will quote the beginning, *Berosus qui a Chaldaeorum civitate seu natione progressus in Asiam etiam disciplinam Chaldaicam patefecit, ita est professus, pilam esse ex dimidia parte candentem, reliqua habere caeruleo colore. cum autem cursum itineris sui peragens subiret sub orbem solis, tunc eam radiis et impetu caloris corripi convertique candentem, propter eius pro-*

prietatem luminis, ad lumen. cum autem evocata ad solis orbem superiora spectent, tunc inferiorem partem eius, quod candens non sit, propter aeris similitudinem obscuram videri, and so on: hence his followers were called *Chaldaei*. *Chaldaeum* is of course the gen. plur.: 1063 *canum Molossum*; 405, VI 754 and II 600 *Graium*; VI 642 *Siculum*. 728 *Astrol. artem* is the system of the astronomers who held the first mentioned theory. 729 *quod pugnat*, a constr. common enough in Cicero: de nat. deor. I 75 *illud video pugnare te*; pro Sex. Rosc. 8 *si hoc solum pugnatur*: so *qui id pugnant* and the like. 733 *aborisci* seems to be found nowhere else: III 155 he has *aboriri*: Lach. compares *ulcisci pacisci nancisci proficisci* etc. 734 *illius in parte*: this use of *pars* in the sense of *locus*, seems to come from the sense it has in *partes agere* or *suscipere*: *reparari in loco illius et partes* or *partem eius suscipere*: Cic. ad Q. frat. I 1 43 *si mea pars nemini cedit, fac ut tua ceteros vincat*: comp. too Ter. eun. 1055 *ut haeream in parte aliqua tandem apud Thaidem*. 735 *vincere verbis*: 99 *Et quam difficile id mihi sit pervincere dictis*: Virg. geor. III 289 *verbis ea vincere magnum Quam sit*; but there the words are the same, the sense different. 737—747 seem to depict some pantomimic representation of the four seasons. 737 *praenuntius*: Hor. epist. I 7 13 *Cum zephyris et hirundine prima* for the first approach of spring: comp. I 10 foll. 739 *Flora* follows close behind and scatters flowers before her which fall close on the steps of spring Venus and zephyr, implying that flowers spring up wherever they have trodden: *tibi suavis daedala tellus Submittit flores*, when Venus alone has to be glorified. 741 *Inde loci*: see n. to 443. 742 *etesia flab. aquil.* recurs VI 730: 715 *Aut quia sunt aestate aquilones ostia contra Anni tempore eo qui etesiae esse feruntur*. 743 *Euhius* and *euhoe* are the only well-attested spellings; probably *Euhan* should also be read; for Aen. VI 517 the best mss. have *euhantis*: the Latins naturally expressed the Greek aspirate in the middle of the word. 745 *Altitonans* here must mean merely loud-roaring though applied to Jupiter by Cicero and Ennius it signifies thundering on high; and this is the usual force in *altivolans altisonus* and the like. 746 *bruma* may be used here in its proper sense of the shortest day, after which the severest cold usually follows, and winter may be said to come in earnest. 749 *certo tempore*, every day, that is: see n. to 704.

751—770: solar eclipses may be caused by the moon intercepting the rays, as the astronomers say; but some opaque and invisible body may just as well be the cause: or the sun may lose for the time his own light in passing through spots inimical to it: lunar eclipses may similarly be explained, mutatis mutandis; thus in the first case it will be the earth which keeps from it the sun's rays.—The three theories here offered to explain the eclipses of the sun and moon are quite pa-

rallel to those given just above to shew how the moon may receive her light. Epic. l. l. 96 gives us a similar choice, *ἔκλειψις ἡλίου καὶ σελήνης δύναται μὲν γίνεσθαι καὶ κατὰ σβέσιν, καθάπερ καὶ παρ' ἡμῖν τοῦτο θεωρεῖται γινόμενον· καὶ δὴ καὶ κατ' ἐπιπρόσθησιν ἄλλων τινῶν, ἢ γῆς ἢ οὐρανοῦ ἤ τινος ἑτέρου τοιούτου*: and Diogenes adds just below *ἐν δὲ τῇ δυωδεκάτῃ περὶ φύσεως ταῦτα λέγει, καὶ τὸν ἥλιον ἐκλείπειν σελήνης ἐπισκοτούσης, σελήνην δὲ τοῦ τῆς γῆς σκιάσματος· ἀλλὰ καὶ κατ' ἀναχώρησιν.* 751 comp. Virg. geor. II 478 *Defectus solis varios lunaeque labores.* *latebras* does not appear to occur elsewhere with this application. 754 *obstruere*: there seems an allusion to the technical use, *obstruere fenestras*, *obstruere lumina* or *luminibus*, though I cannot find an instance exactly similar to the present. 756 and 765 *Tempore eodem*: so 1045 *Tempore eodem alii facere id non quisse putentur.* 757 *Corpus quod* cet.: comp. 717—719. 758 comp. 652 *atque suos efflavit languidus ignis.* 761 *interstingui*, a very rare word, hardly occurring elsewhere in classical Latin, unless in Appul. met. IV p. 264. 763 *super* = insuper: see n. to I 649. 764 *rigidas.. umbras*: old poet in Cic. Tusc. disp. I 37 *ubi rigida constat crassa caligo inferum*: 'even darkness which may be felt.' *coni*, the cone of the earth's shadow; so that *coni* would seem to define the *umbras*, as 369 *pericli* does the *cladem*: considering what Epicurus' and Lucretius' conceptions were of the shape of the earth, they must surely have blindly accepted from astronomers this fact of its conical shadow: the force of *Menstrua* is not at once apparent, as she has to pass most months without any eclipse: yet these do depend on her monthly revolution; and if her orbit lay in the plane of the ecliptic, there would of course be an eclipse every full moon. 765 *succurrere* = succedere, used in this its literal sense is almost or quite unexampled: Forc. compares its metaphorical use in Cic. pro Sex. Roscio 31. 769 *Cur* cet. as 758 foll. of the sun. 770 *per*: see n. to I 841 *Ignibus ex.* 771—782: 'having thus explained how all that goes on above in the heaven may take place, the movements of sun and moon and their eclipses, I now come back to the infancy of the world and the earth and proceed to shew what then took place.' 773 *quicquid* = quicque, as so often in Lucr. *resolvi*: VI 46 *Pleraque ressolui*, where he is talking of the same questions: a rare use of the word, not unlike that in Quintil. inst. VII 9 14 *nec refert quomodo sit facta amphibolia aut quo resolvatur.* 774 Virgil says obscurely *caelique vias* and *caelique meatus*, with reference probably to this passage. 776 *offecto*: see n. to II 156 *Officiuntur.* 779 *convisunt* keeps up the metaphor of *conivent* and *aperto lumine*: II 357 *Omnia convisens oculis loca.* 780 *Nunc redeo* cet. from which he had digressed after 508. 781 *in lum. oras* cet.: see n. to 212 and Virgil there quoted. 782 *crerint* = de-

crerint, is somewhat archaic and used by Cicero in imitating old legal language: yet Catul. LXIV 150 *germanum amittere crevi.*

783—820: first herbage sprang up, then trees, then living things: in the newness of creation the earth produced the larger creatures, birds first, even as now it produces spontaneously worms and the like: then lastly man, whom it fed from its pores with a moisture resembling milk: in the perpetual spring of the new world the children needed nothing more than what the earth thus supplied. 783 *Principio* cet.: in their account of the first production of things the early philosophers would be likely to agree more or less. Lucr. probably had a special eye to Empedocles: thus we are told in Plut. de plac. phil. v 26 and Galen that Empedocles πρῶτα τῶν ζώων τὰ δένδρα ἐκ γῆς ἀναδῦναί φησι, plants with him being imperfect animals. Virgil in geor. II has frequent allusions to Lucr. in return: comp. too the conclusion of his brief epicurean cosmogony, ecl. VI 39 *Incipiant silvae cum primum surgere, cumque Rara per ignaros errent animalia montis.* 786 *per auras* cet.: Virg. geor. II 363 *dum se laetus ad auras Palmes agit laxis per purum immissus habenis.* 788 and 790 *primum* seems to have this force, birds have the rudiments of feathers, quadrupeds have hairs or bristles as soon as they are born before they begin to perform any of the functions of life; so the earth as soon as formed began to put forth its hairs or feathers, herbage and plants, before it yielded any other production. 791 *mortalia saecla* here = 793 *animalia*, every living thing. 793 *Nam neque* cet. in refutation of the stoical belief: II 1153 *Haud, ut opinor, enim mortalia saecla superne Aurea de caelo demisit funis in arva.* 795 *merito* cet.: comp. 821, and II 998 *Quapropter merito maternum nomen adepta est*: he loves to inculcate this truth. 797 *Multaque* cet.: this too he is fond of dwelling upon, as an important confirmation of his theory as to the beginning of sense and life: II 871 *Quippe videre licet vivos existere vermes Stercore de taetro* cet. and elsewhere. 800 *nova*, when their powers were in their vigorous freshness: 907 *tellure nova caeloque recenti.* 802 *tempore verno*: comp. 818 819: there was then perpetual spring; *ver illud erat, ver magnus agebat Orbis.* 803 *Folliculos*: this word meaning originally a small sack, is used for any light envelope rind or husk. *teretis*: comp. IV 58 *Cum teretis ponunt tunicas aestate cicadae*, and n. to I 35. 805 *mortalia saecla* is here of course men, of whom as distinguished from all other living things he continues to speak to the end of the paragraph. Lach. strangely misunderstands and corrupts the passage: it is true that 791 *mortalia saecla* means all living things; and so it does probably II 1153; but Lucr. has never any hesitation in using a word or phrase in different senses, when the language permits him to do so, and he quite disregards any consequent ambiguity. *mortalia saecla* is generally with him synonymous with

mortales; as 988 *mortalia saecla Dulcia linquebant labentis lumina vitae*; 1169 *divom mortalia saecla Egregias animo facies vigilante videbant*; 1238 *se temnunt mortalia saecla.* Euripides in a well-known fragment of the Melanippe keeps the same order as Lucr.: earth and ether Τίκτουσι πάντα κἀνέδωκαν εἰς φάος, Δένδρη πετεινὰ θῆρας οὕς θ' ἅλμη τρέφει, Γένος τε θνητῶν, which may have suggested to Lucr. his *mortalia saecla*, as he was so familiar with Euripides. 806 *umor superabat*: Virg. geor. II 331 *superat tener omnibus umor*: the long epicurean cosmogony in Diod. Sic. I 7 is well worth comparing with this part of Lucr. 808 *uteri*: Censorin. de die nat. 4 9 *Democrito vero Abderitae ex aqua limoque primum visum esse homines procreatos. nec longe secus Epicurus; is enim credidit limo calefacto uteros nescio quos radicibus terrae cohaerentes primum increvisse et infantibus ex se editis ingenitum lactis umorem natura ministrante praebuisse, quos ita educatos et adultos genus hominum propagasse.* *apti* = adepti: so I 448 and VI 1235 *apisci.* Nonius p. 234 quotes instances of *aptus* thus used from Attius Pacuvius Lucilius: add Plaut. capt. 775 *hereditatem sum aptus.* 810 *petessens*: see n. to III 648 *caedesque petessit.* 811 *ibi* Creech refers to 809 *ubi*: in which case it must be temporal, thereupon; but comp. 815 *Impetus in mammas convertitur*; so that it is better to make *ibi* mean, to the spot where the infants lay, to the opened womb; and Lambinus' *ibus* is not needed. 815 *Impetus ille* which went to feed the child before it was born. With this description comp. Diog. Laer. II 17 γεννᾶσθαι δέ φησι [Ἀρχέλαος] τὰ ζῷα ἐκ θερμῆς τῆς γῆς καὶ ἰλὺν παραπλησίαν γάλακτι οἷον τροφὴν ἀνιείσης· οὕτω δὲ καὶ τοὺς ἀνθρώπους ποιῆσαι. 816 Wak. well compares the rhythm of Ovid ars II 475 *Silva domus fuerat, cibus herba, cubilia frondes*; for there are other traces of imitation of Lucr. in this part of Ovid. 818 foll.: comp. Virg. geor. II 336 *Non alios prima crescentis origine mundi Inluxisse dies aliumve habuisse tenorem Crediderim: ver illud erat, ver magnus agebat Orbis et hibernis parcebant flatibus euri, Cum primae lucem pecudes hausere virumque Terrea progenies duris caput extulit arvis.. Nec res hunc tenerae possent perferre laborem, Si non tanta quies iret frigusque caloremque Inter.* 820 *Omnia enim*, and therefore cold and heat and winds too.

821—836: thus mother earth produced in the beginning every kind of living thing, till she left off bearing from age; for she and the world change like everything else: all things have a time of vigour and decay. 821 *etiam atque etiam*, I cannot too often repeat this. 823 *animal* is nowhere else used by Lucr. in the sing. as a subst.: *animans* is his word: and here *omne animal* seems equivalent to *omnia animalia*: he says *animalem formam, animale genus, corpus*; but *animantum genus, natura, saecla, volgum turbamque* and the like: see notes 1 to IV 740

talis natura animantis. *fudit*: 917 *tellus animalia fudit*; Virg. geor. I 13 *Fudit equom magno tellus percussa tridenti*; Aen. VIII 138 *quem candida Maia...fudit.* 825 *Aerias*: I 12 *Aeriae primum volucres.* *variantibu' formis*, as he elsewhere uses *variae*, simply to express the different species: see n. to I 589; and comp. just above 786 *Arboribus variis.* 827 *Destitit* cet.: II 1150 *effetaque tellus Vix animalia parva creat quae cuncta creavit Saecla deditque ferarum ingentia corpora partu*; Diod. Sic. I 7 6 τὴν δὲ γῆν ἀεὶ μᾶλλον στερεουμένην ὑπό τε τοῦ περὶ τὸν ἥλιον πυρὸς καὶ τῶν πνευμάτων τὸ τελευταῖον μηκέτι δύνασθαι μηδὲν τῶν μειζόνων ζωογονεῖν κ.τ.λ. *spatio def. vet.*: comp. II 1174 *spatio aetatis defessa vetusto*, and n. there. 828 829 comp. 834 835. 831 *vertere*: see n. to III 502 *reflexit.* 832 *Namque* cet.: II 77 *Augescunt aliae gentes, aliae minuuntur* cet. 835 *ex alio—alter* = 829 *Ex alio alius*: see n. to IV 688 *Est alio—alter.* 836 *pote*: see n. to II 1 and 5 *Suave*: as there said a neuter adj. is one of the rare cases in which Lucr. omits the subst. verb: III 1079 *Nec devitari letum pote*; and this use of *pote* for *potest* is very common in Latin; but the omission of *fuit* is not so usual; yet comp. Martial IX 15 *Inscripsit tumulis septem scelerata virorum Se fecisse Chloe. quid pote simplicius?* comp. too Petron. sat. 51 *Caesar non pote validius quam expavit*, which is like *immane, mirum quantum.* 836 *ferre* is understood to *nequeat* and *possit* from *tulit.* The stoical moral is as usual much the same as the epicurean: M. Anton. IX 28 ταὐτά ἐστι τὰ τοῦ κόσμου ἐγκύκλια, ἄνω κάτω, ἐξ αἰῶνος εἰς αἰῶνα.

837—854: at first the earth tried to produce monsters of all kinds, half-men half-women, creatures without feet or without hands or mouths, or with limbs not separated; so that they could not grow up nor continue their kind: they all therefore perished off. 839 *Androgynum*: Livy XXVII 11 4 *et Sinuessae natum ambiguo inter marem ac feminam sexu infantem, quos androgynos vulgus, ut pleraque, faciliore ad duplicanda verba Graeco sermone, appellat*: Ovid calls it *hermaphroditus* which became the usual name. *interutraque*: see notes 1 to II 518. *nec utrum* i.e. neutrum; as IV 1217 *Et neque utrum superavit eorum*: Lach. further illustrates this use. *necuter* and *neuter* are as we said to IV 1217 really the same word: Ov. met. IV 378 *nec femina dici Nec puer ut possint; neutrumque et utrumque videntur*; Mart. XIV 174 *Masculus intravit fontes, emersit utrumque.* Lucr. in this passage imitates and partly refutes Empedocles: comp. 238 Πολλὰ μὲν ἀμφιπρόσωπα καὶ ἀμφίστερν' ἐφύοντο Βουγενῆ ἀνδρόπρωρα, τὰ δ' ἔμπαλιν ἐξανέτελλον Ἀνδροφυῆ βούκρανα, μεμιγμένα τῇ μὲν ἀπ' ἀνδρῶν, Τῇ δὲ γυναικοφυῆ, σκιεροῖς ἠσκημένα γυίοις: with the beginning and end of this passage Lucr. is quite in accord; the Βουγενῆ—βούκρανα he wholly disallows, as we shall see 878 foll. where he triumphantly refutes such notions. The βουγενῆ ἀνδρό-

πρωρα was very famous: the great champion of the final cause Aristotle phys. II 8 and his commentators Themistius and Simplicius assail it. 840 *Orba pedum partim*: Virg. geor. IV 310 *Trunca pedum primo.* *manuum*: the gen. after *viduata* is strange, and apparently after the analogy of adjectives like in meaning, *expers* etc.; though II 843 he has *secreta teporis*: it is possible that the εὔνιδες ὤμων of Empedocles 233, whom he here imitates, may have suggested the genitive. 840 841 here too Lucr. seems to be imitating the manner of Empedocles, while differing entirely in the matter: 232 Ἡι πολλαὶ μὲν κόρσαι ἀναύχενες ἐβλάστησαν. Γυμνοὶ δ' ἐπλάζοντο βραχίονες εὔνιδες ὤμων, Ὄμματά τ' οἶα πλανᾶτο πενητεύοντα μετώπων: such a wandering about of single organs and limbs and their subsequent union Lucr. would have thought absurd; for Empedocles continues Αὐτὰρ ἐπεὶ κατὰ μεῖζον ἐμίσγετο δαίμονι δαίμων, Ταῦτά τε συμπίπτεσκον ὅπῃ συνέκυρσεν ἕκαστα, Ἄλλα τε πρὸς τοῖς πολλὰ διηνεκὲς ἐξεγένοντο: and so Censorinus 4 7 *Empedocles autem egregio suo carmine, quod eiusmodi esse praedicat Lucretius* ut vix humana videatur stirpe creatus, *tale quiddam confirmat. primo membra singula ex terra quasi praegnate passim edita deinde coisse et effecisse solidi hominis materiam igni simul et umore permixtam.* 844 *quod for. us.*: see n. to IV 831 *quae foret usus.* 846 *absterruit* has the same force as IV 1234 *cuiquam Absterrent* and 1064 *Absterrere sibi*, where see note. 847 comp. I 564 *quibus possint aevi contingere florem.* 849 *debere*, the sole instance in Lucr. of a hypermetrical v.; once only too, IV 741 *equi atque*, he elides an iambus: both these licences are far commoner in Virgil. The elision at the end of a v. is absolutely unknown to Homer: indeed οὐκ οἶδ' in an epigram of Callimachus seems the only certain instance in Greek hexameter verse. Whoever, Greek or Latin, introduced the practice, must have done it through misapprehending Homer; for surely his verse is a dactylic hexam. catal. 850 and 856 *procudere*: see n. to II 1115. 852 *remissis* gives an excellent sense: IV 1114 *Membra voluptatis dum vi labefacta liquescunt.* 853 *habere* cet. i.e. videmus debere habere utrumque cet.: *uterque* is in the dependent clause according to a favourite habit of Lucr.: see n. to I 15 *capta . . quamque.* Lachmann's changes are too many and violent.

855—877: many races of regularly organised creatures must have died off, because they wanted either some natural power by which to protect themselves, or could not be turned to use by man and be saved thereby: these fell a prey to others and disappeared, unable to endure the struggle for existence. 855 *animantum* are opposed to the monstrous abortions last spoken of: it was not a natural unfitness for life, but outward circumstances that prevented their continuance. Granting Lucretius the premisses from which he starts, his subsequent deductions are eminently able and logical. 856 *prŏpagando*, 850 *prōpagando*: he has ŏ five times, ō twice: but always the subst. *prŏpago*: II 276 *rēfre-*

navit, 283 *rĕfrenatur*: he appears to seek variety of this kind. *prolem*, their breed or race, = 850 *saecla*. 857 *vesci vit. au.*: see n. to 72 *vesci*: Aen. I 546 *si vescitur aura Aetheria*. 858 *denique* here is not a mere idiomatical redundancy as in I 278 and the passages there cited, but means, at least; if no higher quality, well then agility: Hor. sat. I 2 133 *Ne nummi pereant aut puga aut denique fama*; Caes. de bel. Gall. II 33 2 *quod deditione facta nostros praesidia deducturos aut denique indiligentius servaturos crediderant*. 860 *ex util. manent* is probably imitated in the culex 64 *lapidum nec fulgor in ulla Cognitus utilitate manet*, as what precedes and follows abounds in paraphrases of Lucr. 862 *genus acre le.*: Ov. fasti IV 215 *cur huic genus acre leonum* cet.: a passage shewing much imitation of II 600 foll.: Virg. geor. III 264 *genus acre luporum*, II 151 *saeva leonum Semina*. 864 *levisomna*, an elegant ἅπαξ λεγόμ. *cum pec.*: see n. to I 755. 865 *veterino*: 890 *veterino semine equorum*: see Forc. s. v. 866 comp. VI 1237 *Lanigeras tamquam pecudes et bucera saecla*; II 662 *Lanigerae pecudes et equorum duellica proles Buceriaeque greges*; Ov. met. VI 395 *Lanigerosque greges armentaque bucera*. 873 *quare* = ut ob eam rem: II 970 *quorum* = ita ut eorum; IV 116 *quorum* = ut eorum; V 3 *qui* = ut is. 875 *praed. luc. iac.* i. e. omnibus obnoxia, *praedae lucroque erant*.

878—924: but centaurs and the like with twofold natures cannot exist: the horse has reached maturity when the boy is scarcely yet weaned; and is worn out ere the other is grown to manhood: and so with Scyllas, half-maid half-fish: then since fire burns lions like other creatures, how can a chimera exist breathing out flame: earth in its freshness produced many things, but not these figments of poets or philosophers.—This passage is extremely well and acutely reasoned out: he covertly refutes Empedocles' notion of the βουγενῆ ἀνδρόπρωρα and the ἀνδροφυῆ βούκρανα which are as impossible as the centaurs Scyllas and chimeras of the poets. The man-woman or hermaphrodite is possible enough, because the natures of man and woman are not incompatible; and doubtless it and other monstrous things tried at first to continue existence; but the creatures here described never could begin to come into being. 881 *potissit*: see n. to I 665 *potesse*. 882 occurred IV 53 (44). 885 *Ub. mam. qu.*: Ov. met. VII 321 *lactantiaque ubera quaerit*. 886 and 896 *aet. sen.*: see n. to III 772. 889 comp. Aen. VIII 160 *Tum mihi prima genas vestibat flore iuventa*. 890 *Ne*, 891 *neque esse* seems like in principle to Aen. XI 43 *ne regna videres Nostra neque ad sedes victor veherere paternas*; and Cic. orator 221 *ut et aures impleat et ne brevior sit quam satis sit neque longior*, i.e. ne sit vel brevior vel longior: so in Lucr. ne credas posse vel confieri vel esse: Cic. de off. I 91 mss. have *cavendum est ne assentatoribus patefaciamus auris nec adulari nos sinamus*, but Baiter reads *neve* after Nonius: Livy XXVI 42 2 *periculum*

esse ratus ne eo facto in unum omnes contraheret nec par esset unus tot exercitibus; XL 46 4 *non possumus non vereri ne male comparati sitis nec tantum reipublicae prosit quod* cet. and elsewhere; Hor. od. I 11 2 *ne quaesieris* . . *nec temptaris*; Ov. met. III 116 *Ne cape* . . *nec te civilibus insere bellis*. The *neque* closely connects *Confieri* and *esse*: Lucr. is fond of such unions: III 787 *crescat et insit*; 788 *oriri, esse*; 791 *esse, innasci*; 795 *esse et crescere*; 797 *durare genique*. 892 *rabidis* cet.: Wak. compares Sen. Med. 350 *Siculi virgo Pelori Rabidos utero succincta canes*; Ov. amores III 12 21 *Scylla...Pube premit rabidos inguinibusque canes*. 894 *discordia*: Lach. after N. Heinsius quotes Colum. VI 36 2 *ut discordantem utero suo generis alieni stirpem insitam facile recipiat ac perferat*. 897 *unis*: see n. to III 616; and Cic. pro Flacco 63 *unis moribus*, quoted to II 159 *ipsa, una*. 898 *neque sunt* i.e. iis: comp. n. to I 718: slighter examples of this idiom, like many in Virgil quoted by Wagner quaest. XXXIV 4, I have not noticed; where for instance *et que* or *nec* connects a verb with a relative sentence, the relative not applying to this verb; as VI 1015 *Quod facit et sequitur*. 899 *cicuta* cet.: see n. to IV 641, where hellebore is said to do the same, and passages there quoted. 905 906 translated from Il. Z 181 Πρόσθε λέων, ὄπιθεν δὲ δράκων, μέσση δὲ χίμαιρα Δεινὸν ἀποπνείουσα πυρὸς μένος αἰθομένοιο. 906 *Ore foras* occurs four times in Lucr. 907 comp. Juvenal VI 11 *Quippe aliter tunc orbe novo caeloque recenti*. 908 *qui fingit*: he must allude chiefly to Empedocles, as we have shewn above; for the βουγενῆ ἀνδρόπρωρα is so much spoken of that we must have heard, had any other physiologist of note held similar language: II 700 *Nec tamen omnimodis conecti* cet. he touches on the same question as here, 702 centaurs, *Semiferas hominum species*, 704 Scyllas, *conecti terrestria membra marinis*, 705 *flammam taetro spirantis ore Chimaeras*. 911 *Aurea tum dicat* cet.: yet Virgil ventures to say *atque auro plurima fluxit*, which may be an unconscious reminiscence of Lucr. 913 *impete*: see n. to IV 416. 913 foll. comp. I 199 *cur homines tantos natura parare Non potuit, pedibus qui pontum per vada possent Transire* cet. 919 *compactaque*, as 880. 921 is made up of I 889 *Herbarum genera et fruges*, and II 699 *Humanum genus et fruges arbustaque laeta*. 922 *complexa* is of course passive, as II 154 *complexa meant inter se*; just like *implexus perplexus*: Cic. pro Sex. Rosc. 37 *quo uno maleficio scelera omnia complexa esse videantur*; Vitruv. X 2 (6) 11 has even *complectit et compegit*, if the text is not corrupt. 923 *Sed res quaeque* cet.: comp. II 718 *Sed ne forte putes animalia sola teneri Legibus hisce, ea res ratio disterminat omnis. Nam veluti tota natura dissimiles sunt Inter se genitae res quaeque, ita quamque necessest* cet. which seems to confirm *res* in our passage.

925—987: but men were then much hardier than they are now: they

lived like the beasts of the field; ignorant of tillage, they fed on what the earth supplied of itself, acorns and berries; and drank of the running waters: they were without fire or clothes or houses, without law government marriage: they slept on the ground, not fearing the dark, to which they had been used from childhood: they rather dreaded real danger from the fiercer beasts. 926 *Durius* cet. Virgil's *homines durum genus* and *Terrea progenies*. *quod* is of course the rel. pronoun, = *quippe quod* cet. or *ut pote a tellure productum* as Creech interprets. 928 *Fundatum* cet.: IV 827 *fastigia posse Surarum ac feminum pedibus fundata plicari, Bracchia tum porro validis ex apta lacertis*: Arnob. II 16 imitates Lucr. as his wont is. 931 *volventia* neut. as VI 345 *Omnia coniciens in eum volventia cursum*. 932 *Volgivago*: IV 1071 *Volgivagaque vagus Venere*. 934 *mol. arva*: Virg. geor. I 494 *incurvo terram molitus aratro*: Aen. VII 157 *humili designat moenia fossa Moliturque locum*, the word appears to have pretty much the same force, carefully prepares for the purpose in hand. 935 *Nec nova* cet.: 1366 *Et nova defodere in terram virgulta per agros*. 937 *Quod sol* cet.: Macrob. sat. VI 1 65 compares Virg. geor. II 500 *Quos rami fructus, quos ipsa volentia rura Sponte tulere sua, carpsit*. 938 *plac. pec.*: Horace more coarsely sat. II 2 17 *cum sale panis Latrantem stomachum bene leniet*; 8 5 *Quae prima iratum ventrem placaverit esca*. 939 *cur. cor.*: II 31 *iucunde corpora curant*: acorns and arbute berries are thus joined by Virg. geor. I 148 *cum iam glandes atque arbuta sacrae Deficerent silvae et victum Dodona negaret*; and Ov. met. I 102 *per se dabat omnia tellus...Arbuteos fetus . . Et quae deciderant patula Iovis arbore glandes*. 940 *nunc hiberno tempore* cet.: and at the present day in December you may see large tracts of the Peloponnese covered with the arbute trees laden with their bright scarlet fruit. 944 *ampla*: Wak. quotes Hor. sat. II 2 101 *Divitiasque habeo tribus amplas regibus*. 946 *decursus aquai* or *aquarum* is a favourite phrase which he uses four times. 947 *Claru' citat* is a very graphic expression: the clear rills tumbling down from the high hills in those climates are audible from a great distance, especially *Per loca pastorum deserta atque otia dia*: Lach. in his sarcastic and most unsatisfactory note says 'feras decursum aquae, qui vix audiri potest, frustra clare audire iubet.' Whatever it may be with the waters from the high hills of Berlin, those from the hills of Greece and Italy can be heard far enough. Had he known more of those countries, he would not by changing *nec* into *hic* make Horace invite Maecenas to quit his palace where he had the whole scene before his eyes and to come to the poet's villa where he would have had to look through or over many *magni montes* in order to see the *Aesulae arvum* and the *Telegoni iuga parricidae*. With the use of *Clarus* comp. Aen. VII 141 *pater omnipotens ter caelo clarus ab alto Intonuit*.

948 *silv. templa Nymph.* must be such rocky haunts as he describes IV 580 *Haec loca capripedes satyros nymphasque tenere Finitimi fingunt* cet. and as Virgil paints Aen. I 166 *Fronte sub adversa scopulis pendentibus antrum, Intus aquas dulces vivoque sedilia saxo, Nympharum domus*: *templa* here, like *Acherusia templa, mentis templa*, is a secondary meaning derived from the primary *caelestia templa*: Theocr. id. VII 136 τὸ δ' ἐγγύθεν ἱερὸν ὕδωρ Νυμφᾶν ἐξ ἄντροιο κατειβόμενον κελάρυζεν: comp. too Pacuv. 309 *scrupea saxa Bacchi Templa prope adgredite.* 950 *um. saxa Um. sa.*: see n. to II 955; and notice the fine effect of this repetition and the alliteration of the liquids *l* and *r*. 955 *Sed nemora* cet.: 992 *Et nemora ac montis gemitu silvasque replebat*: see n. to 41 *Per nemora ac montes magnos silvasque profundas.* 958 *neque ullis Moribus* cet.: Aen. VIII 316 *Quis neque mos neque cultus erat*, amid other traces of imitation; and with this v. and 961 *Sponte sua* cet. Aen. VII 203 *Saturni gentem, haut vinclo nec legibus aequam, Sponte sua veterisque dei se more tenentem.* 969 *pauca*: 985 *Spumigeri suis adventu validique leonis.* 970 *sic* = sicut erant: comp. Ov. fasti VI 331 *Vesta iacet placidumque capit secura quietem, Sicut erat, positum caespite fulta caput*: so Aen. I 225 *sic vertice caeli Constitit*: *sic*, sicut erat i. e. *Despiciens mare* cet. where Prof. Conington refers to VII 668 *sic regia tecta subibat*, i. e. *pedes, tegumen torquens* cet.: but at the same time it may have the other meaning into which this so readily passes, *sic temere* 'pro leviter et negligenter, quod Graeci οὕτως dicunt' Donatus to Ter. Andr. 175: thus in Ovid l. l. *Sicut erat* = sic temere: *sic* will then have much the force of Horace's *sic temere, positum sic*; of Sen. Hipp. 394 *Sic temere iactae comae*; of Persius' *sic poeta prodirem*; of the mimetic οὕτως in Greek; and of *sic* in many passages of Plautus and Terence, as Amphitr. 117 *ego huc processi sic cum servili schema.* 973 *Nec plangore* cet.: the stoic Manilius, who often attempts while imitating to refute Lucr., appears to allude to this passage in I 66 *Nam rudis ante illos nullo discrimine vita...Tum velut amissis maerens, tum laeta renatis Sideribus; variosque dies incertaque noctis Tempora, nec similis umbras iam sole regresso, Iam propiore, suis poterant discernere causis*: Lucr. is assuredly the more reasonable: Stat. Theb. IV 282 foll. harps on the same theme: *Hi lucis stupuisse vices noctisque feruntur Nubila et occiduum longe Titana secuti Desperasse diem*; so that Lucr. on his part is probably assailing some well-known theory. 975 *respectabant* = expectabant: VI 1234 *Funera respectans. som. sep.*: see n. to I 133 *somnoque sepultis.* 979 *Non erat ut fieri posset* = non poterat fieri: see n. to I 442 *erit ut possint. mirarier, diffidere*, as so often in Lucr. = nomin. subst.: see n. to I 331 *Quod tibi cognosse.* 983 *Infestam fac.*: 1124 *iter infestum fecere viai*; Cicero has *infestam provinciam reddere*; Pollio in Cic. ad fam. X 31 *saltus infestior factus est.*

985 *validique*: see n. to II 285 *uno varioque*: the plur. *Hospitibus* is in favour of the *que* of mss.

988—1010: men then died much about the same as now: here and there they were mangled by wild-beasts and perished from want of help; but then many thousands did not fall in battle in a single day: ships too and therefore shipwrecks were unknown: want and ignorance then caused some deaths; as now do luxury and malice. 988 *nimio plus* is generally used absolutely for 'too much'; but sometimes comparatively as here: Plaut. Bacch. 122 *Quem sapere nimio censui plus quam Thalem*; 150 *Vixisse nimio satiust iam quam vivere*; Livy II 37 4 *nimio plus quam velim nostrorum ingenia sunt mobilia*; XXIX 33 4 *multitudine quae nimio maior erat Syphacem iuvante*: Lucr. VI 1196 *Nec nimio post*. 988 *mortalia saecla* = mortales, as 805, where see note, 1169 and 1238. 989 *linq. lum. vitae*: III 542 *Lumina qui lincunt*; 1025 *Lumina.. reliquit*; Cic. de suo cons. 24 *Luce serenanti vitalia lumina liquit*; frag. de glor. *iampridem lumina linquens*. 993 *Viva* cet.: Attius 226 *natis sepulcro ipse est parens*; Ov. met. VI 664 *Egerere inde dapes demersaque viscera gestit*: *Flet modo seque vocat bustum miserabile nati*; XIII 865 *Viscera viva traham*; XV 525 *Viscera viva trahi*; Enn. ann. 141 *Vulturus.. miserum mandebat homonem. Heu quam crudeli condebat membra sepulcro*; Spenser fa. qu. II 8 16 *To be entombed in the raven or the kight*: before them all Gorgias γύπες ἔμψυχοι τάφοι. There is absolutely no reason for understanding *viscera* in any but the sense it always has in Lucr. viz. the flesh, or all between the skin and bones, either here or in Tusc. disp. II 34: this sense it has too in Ovid. l. l.: *v*, which the Romans pronounced like our *w*, often in alliteration expresses indignant pity; as Aen. VI 833; Cic. pro Sest. 48 *fortissimum virum, ne videret victorem vivus inimicum, eadem sibi manu vitam exhausisse*, and notice just before this the same effect produced by the union of *p* and *v*: 59 *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus*. 997 *Donique* as 708, 723 and II 1116. *vermina*: Paulus Fest. p. 374 '*vermina* dicuntur dolores corporis cum quodam minuto motu quasi a vermibus scindatur. hic dolor Graece στρόφος dicitur.' 998 *vellent* i. e. poscerent: Bentl. compares Sil. Ital. XI 166 *medicinam vulnera poscunt*. 999 *sub signis ducta*: Cic. ad Att. XVI 8 2 *Antonium cum legione Alaudarum ad urbem pergere...legionem sub signis ducere*; Plaut. pseud. 761 *Omnis ordine ego sub signis ducam legiones meas Ave sinistra*: it means ready for battle. 1000 comp. 95 *Una dies dabit exitio*: Wak. compares Enn. ann. 297 [*Milia*] *multa dies in bello conficit unus*. 1002 *temere* cet.: see II 1060 and n. there. 1003 *minas pon.*: Prop. IV (III) 10 6 *Ponat et in sicco molliter unda minas*. 1004 1005 comp. II 559 *Subdola cum ridet placidi pellacia ponti*. 1007 *Tum deinde*: see n. to III 529; and comp. Val. Flaccus VIII 109 *Quaerenti tunc deinde*

[redacted]

viam. *leto dabat*: with this and 999 *Multa milia dabat exitio* comp. Aen. v 806 *Milia multa daret leto.* 1008 *copia mersat*: vi 1176 *sitis arida corpora mersans* is another bold application of this word.

1011—1027: next the use of huts and skins and fire softened their bodies, marriage and the ties of family their tempers: then neighbours made treaties of friendship and alliance, which mostly they observed, though not always. 1013 *Conubium*: see n. to iii 776. 1015 *alsia*: the comparative *alsius* is found in Cicero, *alsiosus* in Varro and Pliny. 1016 *caeli sub tegmine*: i 988 *sub caeli tegmine*, ii 663 *sub tegmine caeli.* 1018 *ing. freg. sup.*: Ovid tristia iii 14 33 with a different force *Ingenium fregere meum mala.* 1020 *nec laed. nec viol.* is inculcated again and again by Epic. in Diog. Laer. x 150 τὸ τῆς φύσεως δίκαιόν ἐστι σύμβολον τοῦ συμφέροντος εἰς τὸ μὴ βλάπτειν ἀλλήλους μηδὲ βλάπτεσθαι. ὅσα τῶν ζῴων μὴ ἠδύνατο συνθήκας ποιεῖσθαι τὰς ὑπὲρ τοῦ μὴ βλάπτειν ἄλληλα μηδὲ βλάπτεσθαι, πρὸς ταῦτα οὐθέν ἐστιν οὔτε δίκαιον οὔτ' ἄδικον. ὡσαύτως δὲ καὶ τῶν ἐθνῶν ὅσα μὴ ἠδύνατο ἢ μὴ ἐβούλετο τὰς συνθήκας ποιεῖσθαι τὰς ὑπὲρ τοῦ μὴ βλάπτειν μηδὲ βλάπτεσθαι κ.τ.λ. Lucr. presents only the fair side of the theory: the speaker in Plato de rep. ii 2 gives a harsher explanation than Epicurus does why men think λυσιτελεῖν ξυνθέσθαι ἀλλήλοις μήτ' ἀδικεῖν μήτ' ἀδικεῖσθαι. 1022 *balbe* seems here to denote mere inarticulate cries. 1025 *bona magnaque pars*: Wak. quotes from Terence and Valerius Max. instances of this pleonasm: Lucr. as we have seen loves the like. 1027 comp. 856 and 850.

1028—1090: nature and need prompted men to the use of speech; for all creatures feel their natural powers: the calf will butt before his horns protrude; and so with other beasts birds etc.: it is absurd to suppose that one man could have invented speech; for how could he himself know what he wanted to teach, or persuade others to learn? and why should not man take to applying different sounds to denote different things, when brute beasts use different cries to express different passions? as we see in the case of dogs horses seagulls crows and other creatures.— He now comes to the question 'quaeri solitum' says Gellius x 4 'aput philosophos φύσει τὰ ὀνόματα sint ἢ θέσει.' Epic. himself in Diog. Laer. x 75 says τὰ ὀνόματα ἐξ ἀρχῆς μὴ θέσει γενέσθαι, ἀλλ' αὐτὰς τὰς φύσεις τῶν ἀνθρώπων καθ' ἕκαστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα ἰδίως τὸν ἀέρα ἐκπέμπειν κ.τ.λ. Plato in the Cratylus appears to agree pretty nearly with Epicurus and Lucr. as well as Lucretius' contemporary the learned pythagorean Nigidius Figulus: Gellius l. l. *nomina verbaque non positu fortuito, sed quadam vi et ratione naturae facta esse P. Nigidius in grammaticis commentariis docet, rem sane in philosophiae dissertationibus celebrem.* Democritus and Aristotle seem to have held the contrary view. 1029 *util. expr.*:

nature forced them to utter general sounds; experience of their use made them give definite terms to definite things. *nom. rerum*: Hor. sat. I 3 99—111, an epicurean passage, has clearly had Lucr. before him: with this and 1058 *Pro vario sensu varia res voce notaret* comp. l. l. 103 *Donec verba quibus voces sensusque notarent, Nominaque invenere*; then with Hor. l. l. 99 *Cum prorepserunt primis animalia terris, Mutum et turpe pecus* comp. 791 foll.; with *glandem atque cubilia propter Unguibus et pugnis, dein fustibus, atque ita porro Pugnabant armis quae post fabricaverat usus* comp. 1416 *Sic odium coepit glandis, sic illa relicta Strata cubilia sunt——obiret*, 1283 *Arma antiqua manus ungues* cet.; with *Oppida coeperunt munire* comp. 1108 *Condere coeperunt urbis*; with 109 *rapientis more ferarum* comp. 932 *vitam tractabant more ferarum*; with 111 *Iura inventa metu* comp. 1144 *Iuraque constituere* and all that follows; then Horace concludes with the favourite Lucretian expression *fateare necesse est.*

1031 *infantia* in its primary sense; Cicero uses it metaphorically, but with much the same force: see Forc. 1033 *quoad* or *quod*, as II 248 *quod cernere possis*, = quatenus. *abuti* = uti. 1035 *inurget*, if found anywhere else, appears to occur only in a very doubtful passage of Appul. met. p. 536. 1036 *scymni*, a curious use of the Greek synonyme of *catuli*. 1040 *auxiliatum*: lexicons cite no other instance of this word. 1041 *tum*, when speech first came into use. 1045 *Temp. eod.*: comp. 765 and 756. 1047 *unde insita* cet.: 182 *Notities divis hominum unde est insita primum, Quid vellent facere ut scirent animoque viderent*, where see notes: *notities* here, as there, is a poetical substitute for Epicurus' technical πρόληψις. 1049 *scirēt*: see notes 1, where this reading is shewn to be necessary; and n. to II 27 *fulgēt.* 1061 *gaudia gliscunt*: Pacuv. 294 *gliscit gaudium.* 1063 *Inritata, magna, Mollia, nudantia*: see n. to 13. *Inritata, ricta*, 1065 *restricta*: Plaut. capt. 485 *Ne canem quidem inritatam voluit quisquam imitarier, Saltem, si non adriderent, dentes ut restringerent*: Wak. well compares Donatus to Andr. 597 '*inritatus.* ducitur autem verbum a canibus qui restrictis dentibus hanc litteram *r* imitantur'. 1064 *ricta*: VI 1195 *rictum*; and so Cic. Verr. IV 94: IV 1213 *vulta.* *restricta* by drawing back the soft lips: Appul. apol. p. 392 *Restrictis forte si labellis riseris.* 1066 *Et cum*, 1071 *Et cum*, 1077 *Et cum*, 1082 *Et quom*: see n. to I 281 *Et cum mollis.* 1069 *Suspensis*: III 196 *aura suspensa levisque*: so *suspenso pede, gradu* and the like: it seems to mean hardly allowed to fall. *teneros* seems proleptic, they make a pretence of biting, but so as to shew at the same time that they mean no harm. 1070 *gannitu, adulant*, 1071 *baubantur* all express primarily sounds made by dogs, as Nonius explains s. vv. with reference to Lucr. 1074 *equus iuvencus*: Hor. od. II 8 21 *Te suis matres metuunt iuvencis*, of young men. 1075

Pinn. am.: Virgil has *aligerum amorem*. 1080 *in salso*: often as *salsus* is an epithet to *mare*, *gurges*, *fluctus* and the like, I do not elsewhere find it, as here, used for a subst. 1084 *cornicum* cet.: Virg. geor. I 388 foll. and 410 foll. has some resemblance to this passage. *cornices* and *corvi* are clearly used here with poetical licence, and between them include the whole crow kind: *greges* would be singularly inappropriate to the primary sense of *corvi*. 1088 *Muta*, as 1059 *pecudes mutae*, has its proper force, the uttering inarticulate sounds.

1091—1104: lightning first gave fire to men; or else the friction of trees rubbing together: cooking they would learn from the sun, which they would see softening and ripening things.— Every one will agree with Lach. that 1091—1160 are subsequent additions by the poet, of the same nature as those we have already so often had; these three paragraphs have no connexion with the context, either before or after: 1161 *Nunc quae* naturally follows 1090; for at 73 he promised to discuss the question of the gods immediately after that of the invention of speech: again in this our present passage he speaks of the first discovery of fire, though 1011 it was already in general use: again 1105—1160 he mentions cities kings magistrates laws, though not till 1361 does he treat of the beginning of agriculture; and then 1440 he speaks of fortresses and the division of lands, though above 1108 all this and much more was assumed. 1091 *tacitus* has much the same force it has Hor. sat. I 3 65 *ut forte legentem Aut tacitum impellat quovis sermone molestus*; epist. I 4 4 *tacitum silvas inter reptare salubres*; II 2 145 *mecum loquor haec tacitusque recordor*: it is then almost the same as *tecum*. 1095 *Fulgĕre*: see n. to II 41 *Fervĕre*. 1096 *Et tamen*: see 1125 and n. to I 1050. 1097 *Aestuat* of the swaying movement of a tree in the wind is natural enough; not unlike Catul. XXV 12 *Et insolenter aestues velut minuta magno Deprensa navis in mari*, or Cic. Verr. II 74 *aestuabat dubitatione, versabat se in utramque partem non solum mente, verum etiam corpore*: the sense of 'grows hot' seems not so suitable here, as that is an after result.

1105—1135: every day men of genius invented improved methods of life: cities were built, lands and cattle allotted at first according to merit; but soon the discovery of gold gave all power to the wealthy: men would not learn how little was needed for happiness; they therefore sacrificed everything for power and eminence, often when they had reached the summit, only to be again dashed down: let men thus struggle on along the path of ambition, since they have no true enjoyment, being really the slaves of their own dependents. 1107 *corde*: *cor habere* was a common phrase: see Forc. 1111 *facie* = 1116 *pulchro corpore*, and means personal appearance, εἶδος, generally. 1117 *gubernet* is potential. 1118 foll. as Epicurus himself so often inculcates: Diog. Laer.

x 144 ὁ τῆς φύσεως πλοῦτος καὶ ὥρισται καὶ εὐπόριστός ἐστιν, ὁ δὲ τῶν κενῶν δοξῶν εἰς ἄπειρον ἐκπίπτει: 130 τὸ μὲν φυσικὸν πᾶν εὐπόριστόν ἐστι, τὸ δὲ κενὸν δυσπόριστον: with whom the epicurean agrees in Cic. de fin. I 46 *natura divitias quibus contenta sit et parabilis et terminatas habet* cet. 1119 *penuria parvi*: so Democr. Mullach p. 170 26 πενίη, πλοῦτος, ὀνόματα ἐνδείης καὶ κόρου· οὔτε ὢν πλούσιος ὁ ἐνδέων, οὔτε πένης ὁ μὴ ἐνδέων. 1120 *claros homines voluerunt se*: Cic. de off. II 78 *qui vero se populares volunt*, de fin. v 13 *Strato physicum se voluit*; and comp. Madvig de fin. p. 316. *se atque*: for rhythm comp. IV 809 *contendere se atque parare.* 1124 *iter viai*: see n. to II 626. *infestum fec.*: see n. to 983. 1127 *vaporant* seems to be used here in a peculiar sense, analogous to that in which he always uses the subst. *vapor.* 1130 *regere imp.*: Aen. VI 851 *Tu regere imperio populos, Romane, memento.* 1131 *sanguine sudent*: this fine expression is used literally VI 1147 *Sudabant etiam fauces.. Sanguine*: Enn. trag. 213 *terra sudat sanguine*; Livy XXVII 4 14 *quattuor signa sanguine multo diem ac noctem sudasse*; and such a notion as this may have given occasion to Lucretius' use of the word. 1133 *sapiunt al. ex ore*: cannot therefore know the true nature of things, and must always *animi incerto errore vagari.* 1135 *Nec magis* cet.: he recalls himself from his digression into the matters of his day to the subject in hand, the early state of the world.

1136—1160: thus kings were overthrown, and the rabble scrambled for supreme power; till nations weary of violence established laws and constitutions: then fear of punishment restrained men, as injustice generally recoils on the wrongdoer, and if he escape punishment, he cannot escape the terrours of conscience. 1136 *Ergo reg. occ.*: because they had attained supreme power, and therefore attracted the lightning of envy and been dashed to the earth. 1140 *metutum*: I find no other instance of this partic. though *metuendus* is so common; but so it is with *timeo horreo* and some other verbs of fearing. 1141 *Res redibat*: there seems to be a play on the double meaning of *res*, between *res redit*, 'matters are brought to such a pitch,' and *res* in the sense of *res publica*; for *redeo* can thus be used in the sense of *res redit*: *pilis missis ad gladios redierunt*, says Caesar: *res ad triarios redit*, says Livy; and so *fortunae meae eo redeunt* and the like. 1142 *summatum*: I find no other instance of this word. 1143 *partim* i.e. *ex iis hominibus partim* or *aliqui docuere*: a use common in the best writers; 1083 *Et partim mutant*; 1310 *partim prae se misere leones*; III 78 *Intereunt partim.* 1144 *Iura, legibus*, 1147 *leges artaque iura*: in the former case these words are probably synonymes; in the latter tautological; though of course *ius* has a wider meaning than *lex* and includes all which is or ought to be legally right: Horace too when he wrote *Qui consulta pa-*

trum qui leges iuraque servat, had probably no accurate distinction in his mind between the last two words, as *iura* comprises strictly speaking *consulta*, *leges* and many other things besides. 1145 and 1150 *colere aevom*: so Plautus and Terence *vitam colere* for *vivere*. 1152 *quemque* i.e. every one who perpetrates the *vis* and *iniuria*. 1156 there is probably some sarcasm in the *divom*; though it may be a mere conventional term of speech, and said with reference to the offender's thoughts. 1157 *id fore clam*: Plaut. trucul. IV 3 21 *Mea nunc facinora aperiuntur, clam quae speravi fore*; Ter. adel. 71 *Si sperat fore clam*: see n. to II 568 *palam est*. Here again we may notice, as was observed in n. to 1020, that Lucr. softens and tones down what Epicurus himself expresses in all its naked harshness, Diog. Laer. X 151 *ἡ ἀδικία οὐ καθ' ἑαυτὴν κακὸν, ἀλλ' ἐν τῷ κατὰ τὴν ὑποψίαν φόβῳ εἰ μὴ λήσει τοὺς ὑπὲρ τῶν τοιούτων ἐφεστηκότας κολαστάς. οὐκ ἔστι τὸν λάθρα τι ποιοῦντα ὧν συνέθεντο πρὸς ἀλλήλους εἰς τὸ μὴ βλάπτειν μηδὲ βλάπτεσθαι, πιστεύειν ὅτι λήσει, κἂν μυριάκις ἐπὶ τοῦ παρόντος λανθάνῃ· μέχρι γὰρ καταστροφῆς ἄδηλον εἰ καὶ λήσει*: Sen. epist. 97 makes much of this theme, *eleganter itaque ab Epicuro dictum puto* potest nocenti contingere ut lateat, latendi fides non potest.. *tuta scelera esse possunt, secura non possunt*, and more to the same purpose: *timere semper et expavescere et securitati diffidere*: and so the epicurean in Cic. de fin. I 50 *quamvis occulte fecerit, numquam tamen id confidet fore semper occultum* cet. 1159 *protraxe*: see n. to I 233 *consumpse*, and comp. III 650 *abstraxe*.

1161—1193: men believed in and worshipped gods, because they saw with their waking minds and still more in sleep shapes of preterhuman size and beauty and strength: as these shapes were ever present and as their might appeared so great, they deemed them to be immortal; and to be blessed, because they could do such deeds and had no fear of death: they saw too the seasons change, and all the wonders of the heaven; they therefore placed their gods in heaven and believed all things to be governed by their providence. 1163 *săcra*, 1164 *săcra*: see n. to IV 1259 *lĭquidis et lĭquida*. 1169 *divom* cet.: something has been said already of the gods of Epicurus, 146 foll. and II 646 foll. and many passages quoted: Sextus adv. math. IX 25 exactly agrees with Lucr. *Ἐπίκουρος δὲ ἐκ τῶν κατὰ τοὺς ὕπνους φαντασιῶν οἴεται τοὺς ἀνθρώπους ἔννοιαν ἐσπακέναι θεοῦ. μεγάλων γὰρ εἰδώλων, φησί, καὶ ἀνθρωπομόρφων κατὰ τοὺς ὕπνους προσπιπτόντων ὑπέλαβον καὶ ταῖς ἀληθείαις ὑπάρχειν τινὰς τοιούτους θεοὺς ἀνθρωπομόρφους.* 1170 *animo vigilante*, 1171 *in somnis*: Velleius in Cic. de nat. deor. I 46 *a natura habemus omnes omnium gentium speciem nullam aliam nisi humanam deorum. quae enim alia forma occurrit umquam aut vigilanti cuiquam aut dormienti?* all this part of Cicero will illustrate Lucr. who means to say that all these sensible impressions of the form size and beauty

of the gods are true, even that of their immortality: it is only the mental inferences added to these impressions which are false, that of their power and strength and providence. **1177** *Et tamen*: comp. 1125 and n. to I 1050: 'putting all the previous considerations aside, this that': Cic. de sen. 16 supplies a good instance of this force, *notum enim vobis carmen est; et tamen ipsius Appii extat oratio* i. e. and even if the verses of Ennius were not known to you, yet Appius' own speech is extant to inform you. I am astonished that the latest editor Halm says to *et tamen* of all mss. 'malim *etiam*.' **1178** *convinci*: he has often used *vinco* for *convinco*; here he uses *convinci* for *vinci*; and I can find no second instance. *putabant*, 1179 *putabant*, 1181 *videbant*, 1176 *manebat*, 1170 *videbant*: this monotony of terminations is common in the older poets who were more unconcerned about such points than the later. **1180** *mortis timor* which Lucr. and Epicurus so often insist on as the main cause of man's misery. *vexaret*: the subj. of course expresses their thought. **1183** *caeli rationes* cet.: Sextus l. l. ἔνιοι δὲ ἐπὶ τὴν ἀπαράβατον καὶ εὔτακτον τῶν οὐρανίων κίνησιν παραγινόμενοι φασὶ τὴν ἀρχὴν ταῖς τῶν θεῶν ἐπινοίαις ἀπὸ ταύτης γεγονέναι πρῶτον. **1187** *tradere, facere* = accus. subst.: see n. to I 418. **1188** *deum templa* seems here to have much the same force as 948 *silvestria templa Nympharum*. **1189** *nox et luna, Luna dies et nox et noctis signa*: Lach. to support his weak alteration says 'si poeta in utroque ἐπανάληψιν voluisset, debebat scribere *nox et luna, Nox et luna, dies*; quibus non poterat subici . . *et noctis signa*'; but it was probably in order that he might add *et noctis* that he has made this variation; and though Lach. says *debebat scribere*, the poet thought differently, supported as he was by the authority of the great exemplar of all poets, who says Il. B 837 Τῶν αὖθ' Ὑρτακίδης ἦρχ' Ἄσιος, ὄρχαμος ἀνδρῶν, Ἄσιος Ὑρτακίδης ὅν, 870 Τῶν μὲν ἄρ' Ἀμφίμαχος καὶ Νάστης ἡγησάσθην, Νάστης Ἀμφίμαχός τε, Νομίονος ἀγλαὰ τέκνα: Aen. VII 138 *tum noctem noctisque orientia signa*. **1190** *severa*: comp. IV 460 *severa silentia noctis*, and n. to V 35 *pelageque severa*. **1191** *Noctivagae* cet.: II 206 *Nocturnasque faces caeli sublime volantis* cet.: see n. there. **1192** why *sol* has this unostentatious position assigned to it, I cannot tell. **1193** *murmura minarum* seems like in principle to 369 *cladem pericli*: see n. there: Sextus l. l. 24: ὁρῶντες γάρ, φησὶ [Δημόκριτος], τὰ ἐν τοῖς μετεώροις παθήματα οἱ παλαιοὶ τῶν ἀνθρώπων, καθάπερ βροντὰς καὶ ἀστραπὰς κεραυνούς τε καὶ ἄστρων συνόδους ἡλίου τε καὶ σελήνης ἐκλείψεις ἐδειματοῦντο, θεοὺς οἰόμενοι τούτων αἰτίους εἶναι.

1194—1240: what misery men brought on themselves by assigning to the gods such powers and passions! the ceremonies of superstition shew not genuine piety which consists rather in despising such things: true when we look up to heaven and think of its beginning and end, this

fear of the gods is apt to seize on us: nay who does not dread the thunder, lest it be a presage of divine vengeance? think too of generals and armies whelmed in the sea; of all man's glories dashed down to the dust by some hidden power: no wonder that men abase themselves before the gods. 1194 *O genus* cet.: the form of expression recalls Emped. 14 *Ὢ πόποι, ὢ δειλὸν θνητῶν γένος, ὢ δυσάνολβον, Οἵων ἐξ ἐρίδων ἔκ τε στοναχῶν ἐγένεσθε.* 1195 *iras* cet.: *neque tangitur ira* was an essential of the divine nature according to Epicurus and Lucr. 1197 *Volnera*: III 63 *haec vulnera vitae*; Cic. de off. III 85 *hunc tu quas conscientiae labes in animo censes habuisse, quae vulnera?* 1198 *velatum* alludes to the well-known Roman custom of praying *velato* or *operto capite*, the Greek custom being *aperto capite*: Dionysius and Plutarch as Greeks both dwell on this to them curious fashion: it was traditionally traced back to Aeneas by them and others as well as by Virg. Aen. III 405 *Purpureo velare comas adopertus amictu.* 1199 *Vertier* alludes to another habit of Roman worship: the suppliant approached in such a way as to have the statue of the god on his right and then after praying wheeled to the right so as to front it, and then prostrated himself: *προσκυνεῖν περιφερομένους*: Suet. Vitellius 2 *primus C. Caesarem adorare ut deum instituit, cum reversus ex Syria non aliter adire ausus esset quam capite velato circumvertensque se, deinde procumbens*: Plaut. curc. 69 *quo me vertam nescio.* PA. *Si deos salutas, dextrovorsum censeo*: Valer. Flaccus has *dextrum vertuntur in orbem*; Livy *convertentem se*; Pliny *corpus circumagere* for the same thing. *ad lapidem* contemptuously of the statue: for it can hardly be used here as in Tibul. I 1 11 *Nam veneror, seu stipes habet . . Seu vetus in trivio florea serta lapis.* 1200 *procumbere*: see Suet. l. l. *pandere palmas*: Aen. III 263 *passis de litore palmis Numina magna vocat*: so *tendere palmas, manus duplices*, etc. etc. 1202 *vota* are here the *votivae tabulae* or *tabellae*, hung up on the wall of a temple or elsewhere, Aen. XII 766 on an *oleaster, nautis olim venerabile lignum*, in fulfilment of a vow on recovery from sickness or for escape from some disaster, especially shipwreck: Tib. I 3 27 *nam posse mederi Picta docet templis multa tabella tuis*; Cic. de nat. deor. III 89 *nonne animadvertis ex tot tabulis pictis, quam multi votis vim tempestatis effugerint?* and so Virgil Horace Juvenal Persius and others; but vows were also thus offered prospectively, before the danger was past: Prop. V (IV) 3 17 *Omnibus heu portis pendent mea noxia vota*; and Lucretius' vague words may refer to either practice or to both. 1203 *pacata*: 1154 *pacatam degere vitam.*

1204 *Nam*: it is true piety, not to perform these ceremonies, but to have a mind at ease; *for* it requires great strength of mind and a knowledge of the true being of the gods, not to be overpowered by the grandeur and terrour of nature. 1205 *fixum* only means fast in its place

and abiding, for he grants it to be probable that the sphere of ether and the stars revolve: Ovid met. II 204 *altoque sub aethere fixis Incursant stellis*, was thinking doubtless of Lucr.: Lucr. as we have seen supposes the stars to be above the sun and moon; probably therefore in the lower part of ether. With this and all that follows comp. Democritus quoted at 1193. 1207 *in pectora caput erigere* i.e. assurgere et invadere pectora. 1208 *caput*: I 64 *Quae caput a caeli regionibus ostendebat*. 1209 *nobis* the dat. ethicus: see n. to I 797. 1211 *rat. eg.*: II 53 *Quid dubitas quin omni' sit haec rationis egestas?* 1214 *Solliciti*: if this be the true reading, comp. I 343 *Non tam sollicito motu privata carerent*; VI 1038 *Sollicito motu semper iactatur*. 1216 = I 1004. 1217 = 379. 1219 *Contrahitur* is the opposite of *diffunditur*, expands with joy: Cic. de nat. deor. II 102 *tum quasi tristitia quadam contrahit terram, tum vicissim laetificat*. *correpunt*, like a worm or other reptile drawing itself together: 'tralatio est mirabilis et audax' says Lamb. 1220 *tellus—caelum*: VI 287 *Inde tremor terras graviter pertemptat et altum Murmura percurrunt caelum*. 1223 *Corripiunt* = contrahunt, but is stronger: IV 83 *correpta luce diei*. 1225 *Poenarum solvendi*, a constr. found not only in Plautus and Terence, *nominandi istorum copia, lucis tuendi copiam, novarum spectandi copiam*; but also in Cicero: phil. V 6 *facultas agrorum suis latronibus condonandi*; de inv. II 5 *ex maiore enim copia nobis, quam illi, fuit exemplorum eligendi potestas*: it is curious that in all these instances the subst. governing the gerund is the same or has the same meaning. 1227 *Induperatorem... Cum leg.*: Enn. ann. 552 *Cum legionibus quom proficiscitur induperator*. 1229 *divom pacem*, grace, favour, pardon of the gods, is copiously illustrated by Forc. from Virgil and others: *deum pacem exposcere, inventa pace deum* and the like are common in Livy; and I find two instances of *pax* thus used in the new corp. inscr. Lat. *adit*: Cicero has *deos, aras adire*. *quaesit*: this old form, always retained in the familiar *quaeso* and in *quaesivi quaesitus*, is found in Ennius several times: Cic. Arat. 18 *si quaesere perges*. 1230 must certainly be retained; for repetitions like *pacem, paces* are very common in Lucr. and the older writers: Hor. epist. II 1 102 *Hoc paces habuere bonae ventique secundi* looks like a reminiscence of Lucr.: the plur. *paces* is common enough. *animas*: see n. to I 715. 1231 *saepe* appears to be idiomatical, as in Aen. I 148, where see Prof. Conington: Lucr. does not mean to say 'in vain, since he *often* perishes none the less'; but what he means is this 'since *in every case* he perishes none the less for all his prayers, as we see by many examples'; *saepe* therefore means *id quod saepe fieri videmus*: though less marked, it has essentially the same force in such passages as II 85 and IV 34 where *cum saepe* means *cum, ut saepe fit*: III 912 *ubi discubuere tenentque Pocula saepe homines* i.e. ut saepe fit. *turbine*

corr.: vi 395 *Turbine caelesti subito correptus*; Aen. i 45 *Turbine corripuit.* 1233 *vis abdita quaedam*, the secret power and working nature; the effect of which in particular cases no man can foretell, h ever unvarying and inexorable her laws: vi 29 *Quidve mali fo rebus mortalibu' passim, Quod fieret naturali varieque volaret Se seu vi, quod sic natura parasset.* Bayle art. Lucrèce n. F accuses L of gross inconsistency in speaking of this *vis abdita quaedam*, when the same time he attributes all things to the necessary movement o atoms, 'cause qui ne sait où elle va ni ce qu'elle fait,' but this very 'cause' is the *vis abdita quaedam.* It is true that as far as form and expression are concerned there is a struggle between the poet's imagination and the philosopher's creed: Lucretius is here speaking of course generally; but it is not unlikely that his fancy may have been caught by reading of some striking disaster of this kind, such as that of M. Claudius Marcellus who perished in this way just before the third Punic war, as he was going on an embassy to Masinissa: *M. Marcellus, qui ter consul fuit, summa virtute pietate gloria militari, periit in mari*, says Cicero in Pison. 44: he several times alludes to his fate by which he was greatly impressed: Livy epit. to l *Claudius Marcellus coorta tempestate fluctibus obrutus est.* 1234 *fascis* cet.: see n. to iii 996. 1237 *dubiaeque*: comp. 985 *validique leonis*, and n. to ii 825 *uno varioque colore.* 1239 *relinquunt*: Madvig at end of Henrichsen de frag. Gottorp. 'non quaeritur quid relinquant, nihil enim tollunt, sed quid necessarium putent et propterea excogitent. scrib. *requirunt*': but *relinqunt* here means to admit, hold, believe, a sense it has again and again in Lucr. with or without an infin.: i 742 *motus exempto rebus inani Constituunt et res mollis rarasque relinquont.*

1241—1280: the metals were discovered through the burning of woods which baked the earth and caused the ore to run: with these they made arms and tools: brass at first was rated more highly than useless gold and silver; now it is the contrary: thus things in turn flourish and decay. 1242 *plum. pot.*: so *venti, animae, animi, corporis potestas* and the like: a favourite periphrasis, with the same force as *vis.* 1246 *form. ergo* i.e. formidinis incutiendae causa. 1248 *pandere* must mean to open up and clear of trees. *pascua* is the adj. 1251 *saepire...ciere*: Virg. ecl. x 57 and geor. i 140 *canibus circumdare saltus.* 1256 *argenti* cet.: Virg. geor. ii 165 *argenti rivos aerisque metalla Ostendit venis atque auro plurima fluxit*: Milton too par. lost xi 565 has imitated all this passage, *two massy clods of iron and brass Had melted, whether found where casual fire Had wasted woods on mountain or in vale Down to the veins of earth; thence gliding hot To some cave's mouth* etc. 1262 *penetr. eos* i.e. penetrabat in animos eorum: I do not find an exactly similar instance, but Wak. quotes Tac. ann. iii 4 *nihil tamen*

Tiberium magis penetravit quam cet. 1266 *darent* i.e. hae res, *pos-[illegible]it* i.e. ipsi. 1268 *terebrare, pertundere, perforare*: I do not know if [illegible]. meant accurately to distinguish these words, or whether he uses them [illegible]logically more or less. *terebra* appears to mean gimlet and auger and [illegible] and I find *terebra pertundere*, and *terebra perforare* in good authors: [illegible]aps *terebrare* is to bore with a gimlet, the oldest sense of *terebra*; [illegible]*tundere* to pierce with a punch; *perforare* to bore with auger or drill. 1270 *violentis*, applied to copper is poetical. 1275 *in sum. succ. hon.*: 1123 *ad summum succedere honorem.* 1276 *volvenda*: see n. to 514 *volvenda sidera. tempora rerum* is much the same as *statum rerum*: Wak. compares Aen. VII 37 *quae tempora rerum, Quis Latio antiquo fuerit status.* 1276 foll. comp. 831 *Omnia commutat natura et vertere cogit. Namque aliut putrescit et aevo debile languet, Porro aliut clarescit et e contemptibus exit.*

1281—1307: for arms men used at first hands nails teeth clubs, then fire, then copper or brass, at last iron; horses next, then chariots, then elephants were employed in war, strife begetting one horrour after another. 1283 *Arma* cet.: Hor. sat. I 3 101 *Unguibus et pugnis, dein fustibus, atque ita porro Pugnabant armis*, has been quoted above. 1289 *Aere* cet.: doubtless, as Lamb. says, he was thinking of Hesiod works and days 150 Τοῖς δ' ἦν χάλκεα μὲν τεύχεα, χάλκεοι δέ τε οἶκοι, χαλκῷ δ' εἰργάζοντο· μέλας δ' οὐκ ἔσκε σίδηρος. 1290 *Miscebant*: there is perhaps in this word a blending of the notions of *miscere fluctus* and *miscere proelia. fluctus*: we have the same metaphor in 1435 *belli magnos commovit funditus aestus. vasta* seems to unite the ideas of huge and ugly misshapen. *serebant*: it is not clear to me from which of the two verbs this comes: it may mean 'scattered broadcast', a stronger term than *spargebant*: comp. *lumine conserit arva*; or, as Livy and others have *levia certamina serens, certamina serebant*, etc. with the force of *conserere*, Lucr. may extend this meaning to *serere vulnera*, they joined applied or the like: but *sermones, colloquia, circulos, haec sermonibus, Haec inter sese vario sermone serebant*, seem equally ambiguous. 1294 *Versaque* cet. must allude, as Bentl. says, to its use in magical and unlawful rites: Aen. IV 513 *Falcibus et messae ad lunam quaeruntur aenis Pubentes herbae*; Ovid met. VII 227 *Partim succidit curvamine falcis aenae.* 1296 *Exaequata*, by the equality of weapons. 1297 *conscendere* and the following infinitives, as 1250 *venarier*, are all used as substantives: see n. to I 331. 1298 *dex. vig.*: while guiding the horse with the left, to have the free use of the right. 1302 *boves lucas*, 1339 *boves lucae*: Pliny nat. hist. VIII 16 *elephantos Italia primum vidit Pyrri regis bello et boves lucas appellavit in Lucania visos anno urbis* 472: Varro de ling. Lat. VII 39, in trying to controvert, really

confirms this tradition. 1302 *turrito*, thus applied in prose: se Forc. 1303 *Anguimanus*: see n. to II 537.

1308—1349: bulls boars lions too were tried in war; but they ofte turned upon their owners, as elephants are sometimes seen to do now probably they were employed by the weaker side only in despair. 131 *partim*: see n. to 1143. 1318 *iac. cor. sal.*: Aen. II 565 *corpora salt Ad terram misere.* 1321 *deplexae* appears not to occur elsewher but expresses very vividly the action in question, 'de eis pendent eisque implicatae' Turneb. adv. XXX 22. 1327 1328 an ἐπανάληψις; a in Catul. LXII 21 *Qui natam possis complexu avellere matris, Complex matris retinentem avellere natam*: *In se fracta* then defines more precisely *infracta* of 1327 'broken off, yes broken off in their own body'. 1327 *Tela infr.*: Aen. X 731 *infractaque tela cruentat.* 1330 *exibant adactus*: VI 1205 *Profluvium porro qui...Exierat*; 1217 *ut acrem exeiret odorem*: Virgil Terence and others have the same constr.: Vitruvius uses the personal passive in the sense of passed through or over: X 9 (14) 3 *quantum diurni itineris miliariorum numero cum raeda possit exiri*; and so Paulus Fest. p. 28 '*ad exitam aetatem*, ad ultimam aetatem'. 1332 *succisa*, the technical word for ham-strung: Livy XLIV 28 14 *equi pars in mari fractis navibus absumpti, partim nervos succiderunt in litore Macedones.* *ab nervis* is a parte nervorum, where the tendons were: comp. Cic. in Verr. V 32 *ne excitetur Verres, ne denudetur a pectore*; Caes. de bell. Gall. VI 28 5 *haec studiose conquisita ab labris argento circumcludunt atque* cet.: such expressions as Livy XXVII 14 3 *sinistra ala ab Romanis* are like in principle. 1333 *terram const.*: Aen. XII 543 *late terram consternere tergo.* 1334 *domi domitos*, an intentional assonance: see n. to I 826 *sonitu sonanti.* 1338 *varium genus omne*: VI 363 *Tum variae causae concurrunt fulminis omnes.* 1339 *male mactae*: some editions and lexicons refer *mactae* to *macte* without shewing what connexion either in form or sense there is between the two; others make it the same as *mactatae* without any explanation: I cannot doubt that it is the partic. of a verb *macĕre*: see notes 1 to I 451 *permiciali*, where Koch's proofs of this form, accepted by Ritschl, are referred to. Mueller Festus p. 397 seems rightly to restore a fragment of Naevius thus, *namque nullum Peius macit homonem quamde mare saevum*, and to defend *permacĕre* in Ennius, with which *permicialis* will be connected: *mactae* then will be 'mauled' 'hacked about': comp. *macellum.* 1340 *fata dedere*, as 1329 *dabant ruinas*: see n. to IV 41. 1341 *adducor ut* for *adducor ad credendum ut*, though not from Lucr., is good Latin: comp. Cic. de fin. I 14 *illud quidem adduci vix possum ut ea quae senserit ille tibi non vera videantur*, and Madvig there who gives other instances. 1345 = 528.

1350—1360: weaving came into use after iron which is needed for

the instruments employed in it: men first practised it, afterwards women. 1350 *Nexilis vestis* would be a garment of skins fastened on the body by tying. 1353 *Insilia* might be supposed to be connected with *insilio* and to answer to the treadle, pressed by the weaver's foot: but Creech pertinently remarks that *levia* is not then an appropriate epithet: and iron or steel could hardly be needed for such a purpose: Schneider in his index to the script. rei. rust. thinks they are the heddles or leash-rods which open the warp, as Rich records; and this is probable enough. The word is not found elsewhere and its meaning must be guessed. *radii* seem to have performed the office both of shuttle and batten or *pecten* or κερκίς: see Rich's companion. 1359 *durum*, 1360 *in duro durarent*: 1402 *Duriter et duro.*

1361—1378: nature first taught to sow plant graft: then one kind of culture after another was discovered, and more and more ground brought under tillage. 1361 *specimen* cet.: 186 *ipsa dedit specimen natura creandi.* 1364 *pullorum*: Cato de re rust. 51 *ab arbore abs terra pulli qui nascentur, eos in terram deprimito*: the verb *pullulo* is more common in this sense. *examina* I do not find elsewhere thus applied: *suboles proles propago* are similarly transferred from plants to animals. 1367 foll. comp. Virg. geor. II 35 *proprios generatim discite cultus, Agricolae, fructusque feros mollite colendo.* 1368 *mansuescere terram*: see n. to IV 1282. 1369 *indulgendo, colendo*: men are the subject of these gerunds, *terram* of *mansuescere*: see n. to I 312 *habendo.* 1374 *Caerula*, the γλαυκὺς φύλλον ἐλαίας. 1377 *Omnia*: 1066 *latrant et vocibus omnia complent.* 1378 *Arbustis*: see n. to I 187: Lucr. uses *arbusta* continually for *arbores*, never *arbustis* for *arboribus* which suits his v.; *arbustis* therefore has here its usual meaning, and is nowhere else found in his poem. *opsita circum* and *intersita* are of course set in contrast. Wordsworth scenery of the lakes quotes 1370—1378 and says of them 'Lucretius has charmingly described a scene of this kind'. The description is likewise eminently true of Italy, and is singularly graphic and compressed.

1379—1435: birds taught men song; from the whistling of the zephyr through reeds they learnt to blow through stalks: next the pipe came into use, with which they amused themselves mid other kinds of rustic jollity: with such music watchers would while away the time, and derive no less pleasure than now is gotten from elaborate tunes: then acorns skins beds of leaves were given up; though fought for once as eagerly as men now strive for purple and gold: lust of gain and cares came next to vex life. 1380 *levia*: Quintil. inst. II 5 9 *quae levis et quadrata, sed virilis tamen compositio*: V 12 18 he shews whence the metaphor comes: *dum levia sint ac nitida, quantum valeant, nihil interesse arbitramur*: *levitas* and λειότης are used in the same way. 1381

Concelebrare seems to have the sense it has in Cic. de inv. I 4 *mihi videntur postea cetera studia recta atque honesta, per otium concelebrata ab optimis, enituisse*: see also n. to I 4 *Concelebras*: the sense of often practising or resorting to a thing readily comes from its primary sense. 1383 *cicutas*: Virg. ecl. II 36 *disparibus septem compacta cicutis Fistula.* 1386 *nemora, silvas, saltus*: see n. to 41. 1387 *otia dia*: the meaning of *dia* here is not easy to determine: see n. to I 22 *dias in lum. oras*: does it denote that strange preternatural silence and repose, which you find for instance at the present time in passing on a fine day over the higher table-lands of Arcadia, so eminently now as always *loca pastorum deserta*? or is it *otia sub divo*, if indeed *dia* can bear that meaning? *dia* may indeed have much the same meaning as *divinus* in Aen. III 442 *Divinosque lacus*; Prop. I 18 27 *divini fontes.* 1391 *Cum sat. cibi* i.e. ἐπεὶ πόσιος καὶ ἐδητύος ἐξ ἔρον ἕντο: *nam tum*, for then, and not till then, they have leisure to think of mental pleasures. 1392—1396 = II 29—33, with slight changes. 1394 *habebant*, II 31 *curant*: Plaut. capt. 314 *Is, uti tu me hic habueris, proinde illum illi curaverit.* 1399 *plexis* cet.: Catul. LXIV 283 *Hos* [flores] *indistinctis plexos tulit ipse corollis*, with another constr.: comp. the various ways in which *circumdatus* and so many similar words are used in Latin. 1401 *extra numerum*, the opposite of *in numerum*, is found in Cicero: parad. III 26 *histrio si paulum se movit extra numerum*: see n. to II 631 and 636 *in numerum.* 1402 *terram* cet.: Hor. od. III 18 15 *Gaudet invisam pepulisse fossor Ter pede terram.* 1405 *vigilantibus*, whether because they could not go to sleep or because they were obliged to watch. *solacia somni*: Lach. well compares Aeschylus' ὕπνου ἀντίμολπον ἄκος: but as *somnus* here = *somnus negatus* anyhow, I am not sure that the *somno* of mss. will not stand; but the judgment of Lamb. and Lach. on such a point when they agree is very weighty. 1406 *Ducere, flectere* appear to be technical terms: Ov. amores II 4 25 *Haec quia dulce canit flectitque facillima vocem*; Pliny XVI 171 speaking of *tibiae* says *apertioribus earum lingulis ad flectendos sonos.* 1407 comp. IV 588 *Unco saepe labro calamos percurrit hiantis.* 1408 *vigiles* must be official watchmen, whether of the camp or the town. 1414 Wak. gives us the choice of two constructions: illa melior res posterior reperta perdit sensus, which he prefers; and, posterior res melior perdit illa reperta; but there is a third course open to us, posterior res melior reperta perdit illa [priora]; and that I doubt not is what Lucr. meant: he is sufficiently indifferent to such ambiguities; comp. 1382 *Et zephyri, cava per calamorum, sibila*; and two lines below, *illa relicta Strata cubilia sunt herbis*, and 1418 *vestis* coming between *Pellis* and *ferinae*, and IV 193 *parvola* [neut.] *causa*: in all these cases we are left to the sense alone to guide us. 1421 *Et tamen*, and after all when they had killed the

owner, they got no good from it. 1422 *convertere*: comp. IV 1130 *vertunt*, and n. to III 502 *reflexit*: Cic. Brutus 141 *hoc vitium huic uni in bonum convertebat*; pro Plancio 50 *non dubito quin omnis ad te conversura fuerit multitudo.* 1428 *auro* cet. i.e. large figures worked in with gold. 1433 *quoad crescat*, after which it becomes excess. 1434 *provexit*, a technical expression for carrying a ship out to sea.

1436—1439: the sun and moon taught men the seasons of the year. 1436 *magnum versatile*: for the double epithet see n. to 13 and I 258. *versatile*: see n. to 505: Lach. observes '*versatile* non magis *templum* esse potest quam *locus*'; but I 1105 *Neve ruant caeli penetralia templa superne*; VI 285 *displosa repente .. templa*: if a thing can tumble down or burst in pieces, it surely can revolve. 1437 *lustrantes* cet.: comp. Cic. Arat. 237 *Quattuor aeterno lustrantes lumine mundum Orbes stelligeri* cet.

1440—1447: then came walled towns, division of lands, ships, treaties between states; and, when letters were invented, poetry. 1442 *florebat*: I 255 *laetas urbes pueris florere videmus.* 1445 foll.: comp. 326 foll.

1448—1457: thus by degrees experience taught men all the useful and graceful arts, one advance suggesting another, till perfection was attained. 1450 *Praemia*: III 956 *Omnia perfunctus vitai praemia.* 1452 *Usus* cet.: Virg. geor. I 133 *Ut varias usus meditando extunderet artes Paulatim*; Manil. I 61 *Per varios usus artem experientia fecit, Exemplo monstrante viam.* 1453 *ped. progr.*: 533 *hautquaquamst pedetemtim progredientis.* 1454 *Protr. In med.*: Aen. II 123 *Protrahit in medios.*

BOOK VI

1—42: Athens first gave mankind corn and laws; but better than all him who, when he saw that men had all the necessaries and refinements of life and yet were miserable, taught them true wisdom and the way to true happiness and rid them of empty cares and fears. 1 *Primas* cet.: of many similar panegyrics take Cic. pro Flacco 62 *adsunt Athenienses, unde humanitas doctrina religio fruges iura leges ortae atque in omnes terras distributae putantur.* *mortalibus aegris* is found in Virgil more than once. 4 *solacia* cet.: so V 20 of Epicurus *Ex quo nunc etiam per magnas didita gentis Dulcia permulcent animos solacia vitae.* 5 *cum corde*: see n. to I 755. 7 *et*: there is no real distinction between *et* for *etiam*, and, as Lach. explains it, *et eius extincti*: it is in vain to dispute Lucretius' use of *et* for *etiam.* 8 *ad caelum*: κλέος οὐρανὸν ἵκει. 11 *proquam*: see n. to II 1137. 13

[redacted]

excellere seems used in the sense it has in Cato, cited by Gellius twice: see Forc.: *scio solere plerisque hominibus rebus secundis atque prolixis atque prosperis animum excellere* cet. 14 *Nec* cet. i. e. et tamen nemini minus esse. 15 *ingratis*: see n. to III 935 *gratis*. *animi ingratis*: Plaut. merc. 479 *tueis ingratieis*; Cas. II 5 7 *Vobis invitis atque amborum ingratiis*. *corda* appears to be the subject of *vexare*, though it may be *homines*. 16 *Pausa* we have had already five times. *infestis* has pretty nearly the force of *saevis*: they are complainings expressing hatred and hostility towards nature and the condition of things. 17 *Intellēgit*: the best mss. of Sallust have *intellēgit* in Iug. 6 2, and *intellēgerint* in hist. I 41 23: Lach. gives examples of *neglēgi* also. *vas* cet.: III 936 *Et non omnia pertusum congesta quasi in vas Commoda perfluxere atque ingrata interiere*: Hor. epist. I 2 54 *Sincerum est nisi vas, quodcumque infundis acescit.* Here again stoic and epicurean meet: Gellius XVII 19 *ἄνθρωπε, ποῦ βάλλεις; σκέψαι εἰ κεκάθαρται τὸ ἀγγεῖον· ἂν γὰρ εἰς τὴν οἴησιν αὐτὰ βάλλῃς, ἀπώλετο· ἢν σαπῇ, οὖρον ἢ ὄξος γένοιτο ἢ εἴ τι τούτων χεῖρον. nil profecto his verbis gravius, nil verius, quibus declarabat maximus philosophorum* [Epictetus] *litteras atque doctrinas philosophiae, cum in hominem falsum atque degenerem, tamquam in vas spurcum atque pollutum, influxissent, verti mutari corrumpi et, quod ipse κυνικώτερον ait, urinam fieri aut si quid est urina spurcius.* 19 *conlata foris* and *commoda* are opposed to *illius vitio corrumpier intus*: they come from without and they are too in themselves good and salutary; therefore it is the *vas ipsum* alone that is in fault, and not the things which come into it: thus the heart of man is to blame, not what nature gives to it: the copula *et* adds much to the force of the antithesis. 20 *fluxum* which means loose, falling to pieces and the like, applied to an earthen vessel can hardly have any other sense than leaky: III 1009 *laticem pertusum congerere in vas, Quod tamen expleri nulla ratione potestur.* 23 with the position of *intus* comp. V 572 *videri, Nil adeo ut possis plus aut minus addere, vere*: on *intus* see n. to III 171: there and I 223, II 711 and IV 1091 *intus* has its proper force; though to join *intus* with *receperat* would be the more natural collocation of the words; and even Lamb. though he suggests the punctuation which Lach. and I have adopted, adds 'aut *intus* pro *intro* accipiendum quod huic scriptori non esse inusitatum iam ante admonuimus.' Ovid met. X 457 *Iamque fores aperit, iam ducitur intus, intus* must surely = intro.

24 *purgavit*: V 43 *At nisi purgatumst pectus, quae proelia.. Quantae tum scindunt hominem cuppedinis acres Sollicitum curae quantique perinde timores*: Epic. Diog. Laer. X 142 says more harshly *εἰ τὰ ποιητικὰ τῶν περὶ τοὺς ἀσώτους ἡδονῶν ἔλυε τοὺς φόβους τῆς διανοίας τούς τε περὶ μετεώρων καὶ θανάτου καὶ ἀλγηδόνων, ἔτι τε τὸ πέρας τῶν ἐπιθυμιῶν ἐδί-*

δασκεν, οὐκ ἂν ποτ' εἴχομεν ὅ τι μεμψαίμεθα αὐτοῖς πανταχόθεν εἰσπληρουμένοις τῶν ἡδονῶν κ.τ.λ. : Hor. epist. I 16 65 *qui cupiet, metuet quoque*: Seneca has many similar common-places. 25 *finem* within which they may be indulged; beyond which peace of mind cannot exist. 26 *bonum summum*, being in great measure the *finem cupp. atque tim.* of 25 : Epic. l. l. 128 refers this *ἐπὶ τὴν τοῦ σώματος ὑγίειαν καὶ τὴν τῆς ψυχῆς ἀταραξίαν, ἐπεὶ τοῦτο τοῦ μακαρίως ζῆν ἐστὶ τέλος...τὴν ἡδονὴν ἀρχὴν καὶ τέλος λέγομεν εἶναι τοῦ μακαρίως ζῆν.* But, like Lucr., he goes on to explain that, when he says pleasure is the end and chief good, he does not mean such pleasure as the ignorant or malevolent allege he does, but, l. l. 131 *τὸ μήτ' ἀλγεῖν κατὰ σῶμα μήτε ταράττεσθαι κατὰ ψυχήν*, and 132 *νήφων λογισμὸς καὶ τὰς αἰτίας ἐξερευνῶν πάσης αἱρέσεως καὶ φυγῆς καὶ τὰς δόξας ἐξελαύνων κ.τ.λ.*, but above all *φρόνησις ἐξ ἧς αἱ λοιπαὶ πᾶσαι πεφύκασιν ἀρεταί, διδάσκουσαι ὡς οὐκ ἔστιν ἡδέως ζῆν ἄνευ τοῦ φρονίμως καὶ καλῶς καὶ δικαίως, οὐδὲ φρονίμως καὶ καλῶς καὶ δικαίως ἄνευ τοῦ ἡδέως· συμπεφύκασι γὰρ αἱ ἀρεταὶ τῷ ζῆν ἡδέως καὶ τὸ ζῆν ἡδέως τούτων ἐστὶν ἀχώριστον*: when to this is added what the stoical Seneca records epist. 66 18 *Epicurus quoque ait sapientem, si in Phalaridis tauro peruratur, exclamaturum 'dulce est et ad me nil pertinet,'* we may doubt whether a stoic could go much farther. 27 *tramite parvo*: see Lach.: doubtless Epicurus, and probably in his work *περὶ τέλους*, taught that to true wisdom and happiness there was but one narrow way, to error many broad ones: Hor. sat. II 3 48 *ubi passim Palantes error certo de tramite pellit* cet. 31 *Seu casu seu vi* are two expressions for the same thing, the inexorable chance or necessity, called v 77 *natura gubernans*, 107 *fortuna gubernans*, by which all things go on; *ὅλως πρόνοιαν μὴ εἶναι μηδὲ εἱμαρμένην, ἀλλὰ πάντα κατὰ αὐτοματισμὸν γίνεσθαι*, says Hippol. ref. haer. I 22 of Epicurus: see n. to v 77: the *κατ' αὐτοματισμόν* is *naturali casu*; or II 1059 *Sponte sua forte offensando semina rerum Multimodis temere incassum frustraque coacta. nat. par.*: l. l. *hic sit natura factus* [orbis], and yet by mere chance at first. 32 *quibus e portis* cet. an obvious military metaphor. 34 *Volvere* cet.: 74 *magnos irarum volvere fluctus*; III 298 *Nec capere irarum fluctus in pectore possunt*, where see n. 35—41 = II 55—61. 42 comp. I 418 *ut repetam coeptum pertexere dictis*, where see n.

43—95: once more I mount my chariot, to tell what remains to be told of the things which go on above us, and to dispel the causeless fears of men who believe such things to be tokens of divine wrath: the gods will indeed plague you, if you so believe; not that they will themselves do you any hurt, but the images proceeding from their holy bodies will stir up these vain fears and poison existence. I have now therefore to sing of thunder, of tempests, of other things that take place in the sky. 43 *docui* cet. v 91—415. 46 *ressolui*: see notes 1 and n. to v 773

resolvi: *dissolui* cannot be defended by IV 500 *dissolvere causam*, which has there a technical and quite different force. *percipe porro* occurs Aen. IX 190. 47 comp. Manil. V 10 *Cum semel aethereos iussus conscendere currus Summum contigerim sua per fastigia culmen*; for he is commencing his last book. 48 *ex ira ut plac.*: Aen. VI 407 *tumida ex ira tum corda residunt.* 51 *saepe* here too seems to mean *ut saepe fit*: see n. to V 1231. 52 *Et* [quae] *faciunt*: the nom. *quae* supplied from the *quae* of 50: see Madv. Cic. de fin. p. 659; and comp. Plaut. rud. 291 *Praesertim quibus nec quaestus est nec artem didicere ullam*: also V 898: Aen. VI 283 is very similar, but harsher, *quam sedem somnia volgo Vana tenere ferunt foliisque sub omnibus haerent.* 53 *Depressos, premunt*: perhaps the difference of form makes this tautology less harsh; the metaphorical force too is more prominent in *depressos*, the literal in *premunt.* 58—66 are repeated word for word from V 82—90: see our remarks to those vss.: much that is there said applies here as well: 35—41 are we saw likewise a mere repetition; as are 87—89 below; and the whole paragraph has much of that disjointed character of which we there spoke, as characteristical of so many of his introductory passages; nor in stating 83 foll. what is to be the subject of this book does he allude to one half of the questions really discussed; though a little before, 50 *Cetera quae fieri in terris caeloque* cet. he seems to promise the rest of the book, nay a good deal more than he fulfils: 56 57 and 90 91 may have been inserted by the interpolator; or they may have been marginal annotations of the author, who felt this portion of his poem to be unfinished, and thought that these vss. which come from I 153 154, might in the end adapt themselves to one of these places.

66 *rationi*: comp. II 520 *mucroni*: I find in the new corp. inscr. Lat. the abl. *coventionid deditioni proportioni sanctioni*, also *hereditati heredi marmori nomini* and *salutei virtutei faenisicei*, as well as the more usual *parti partei luuci luci sorti silici.* 69 *putare* is for an accus. subst.: see n. to I 418 *repetam pertexere* and 331. *indigna putare alienaque* is not a common construction, but Lach. illustrates it from Cic. de sen. 4 *quis coegit eos falsum putare* and Aen. VIII 522; Forc. also exemplifies it from Virgil and Terence. 70 *Delibata*, used in a sense naturally flowing from what the word has III 24, 1088, VI 621: Hav. well compares auctor ad Heren. IV 68 *ille nulla voce delibans insitam virtutem concidit tacitus.* 72 *petere inbibat*: III 996 *Qui petere a populo fasces saevasque secures Imbibit.* 73 *cum pace*: see n. to I 287 *validis cum viribus.* 74 *volvere* cet.: 34 *Volvere curarum tristis in pectore fluctus*, where see note. 75 *plac. cum pectore*: comp. 5 *tali cum corde*, and n. to I 775; though perhaps this resembles more the use of *cum* illustrated to I 287 *validis cum viribus*, being a modal abl. rather than one of qual-

ity; as 73 *cum pace.* 76 *simulacra* cet.: comp. v 1169 and explanations given there. 83 *ratio caeli speciesque* means both the internal causes and the external aspect of what takes place above our heads: comp. his oft-repeated formula *naturae species ratioque. tenenda* = intellegenda: see n. to II 1173 *Nec tenet.* 86 *caeli div. par.* cet.: comp. Cic. de div. II 42 *quid est igitur quod observatum sit in fulgure? caelum in sedecim partis diviserunt Etrusci. facile id quidem fuit, quattuor quas nos habemus duplicare; post idem iterum facere ut ex eo dicerent, fulmen qua ex parte venisset;* 45 *caeli enim distributio quam ante dixi et certarum rerum notatio docet unde fulmen venerit, quo concesserit; quid significet autem nulla ratio docet*: Pliny II 143 is even more precise, *in sedecim partes caelum in eo respectu divisere Tusci. prima est a septentrionibus ad aequinoctialem exortum* cet. *itaque plurimum refert unde venerint fulmina et quo concesserint. optimum est* cet.: comp. too 381 foll. where these vss. are repeated. 87 *in utram* appears to be explained by Pliny l.l. *ex quibus* [sedecim partibus] *octo ab ortu sinistras, totidem e contrario appellavere dextras*: it will mean, whether into the half on the right or on the left; unless it is rather into which of two disputed quarters. 88 *partim,* as 384: see n. to I 1111: corp. inscr. Lat. 187 *aidiles vicesma parti Apolones dederi* i.e. vicesimam partim Apollinis dedere: it is found even in Livy XXVI 46 8 *partim copiarum ad tumulum expugnandum mittit, partim ipse ad arcem ducit. quo pacto,* 89 *ut*: because on minute observation of all the above points hung the interpretation of what the lightning portended: for a notion of the subtleties connected with this art read Sen. nat. quaest. II 49, 50. 89 *dominatus*: 224 *Et celeri flamma dominantur in aedibus ipsis.* 92 *praescribta*: v 489 *elabsa*: contrary to what many seem to suppose, this retention of *b* for *p* in such words is very rare in our oldest authorities: thus the new corp. inscr. Lat. always has *scriptus*: the *b*, judging by the Pithoeanus of Juvenal and other old mss., seems to have become more common in the silver age, artificially recalled no doubt: the best mss. of Virgil however have sometimes the *b*, as geor. I 200 *sublabsa* M P and the new frag. A published by Pertz: the above remarks apply to *adque* for *atque*: see n. to II 881. *calcis*: see Forc. and Seneca and Pliny cited by him. 93 *call. musa Calliope*: Empedocles in a new frag. in Hippol. ref. haer. VII 31, which probably was at the beginning of the third and last book of his poem, has ἄμβροτε μοῦσα... νῦν αὖτε παρίστασο, Καλλιόπεια, κ.τ.λ. 95 *ins. laude*: Wak. cites Aen. I 625 *insigni laude ferebat.*

96—120: thunder comes from the collision of clouds: the denser they are, the deeper the rumbling: sometimes the noise is like that of a sheet of canvass blown about, sometimes like the crackling of paper: sometimes the clouds graze each other sideways and occasion a dry protracted

sound.—We again come to matters beyond the certain test of sense; of which therefore many explanations may be and are equally true: the remarks appended to v 533 will apply here and to what follows. 99 *Nec fit enim* i. e. *nec enim*, or *neque enim fit*. 105 *Nam cadere aut* for *nam aut cadere*, an idiomatical irregularity such as all Latin and Greek writers allow themselves, and which cannot be refused to Lucr.: indeed 114 *Aut ubi.. chartasve* is of much the same character; and v 383 *vel cum sol* is more violent: see n. there. *bruto*: Paulus Fest. p. 31 '*brutum* antiqui gravem dicebant.' 108 *aeq. mun.*: Attius 223 *Sed quid tonitru turbida torvo Concussa repente aequora caeli Sensimu' sonere.* 109 *Carbasus* cet.: IV 75 *lutea russaque vela Et ferrugina cum magnis intenta theatris Per malos volgata trabesque trementia flutant*, where see notes. 112 *commeditatur* seems not to occur for certain anywhere else: it must mean to get up and practise a subject, and thus represent or imitate it. 114 *Aut ubi* i. e. ubi aut s. v. aut chartas cet. or, vel.. vel: Plaut. asin. 522 *Quotiens te vetui Argurippum.. Compellare aut contrectare conloquive aut contui.* 119 *Aridus—ducitur*: the sound well represents the sense. *Aridus*: Virg. geor. I 357 *aridus altis Montibus audiri fragor.*

121—131: sometimes the thunder makes a noise like the crack of doom, when a storm of wind eddies round within a cloud and hollows it out, until at last it explodes with a frightful crash. 124 *ven. proc.*: 293 *ventique procella.* 125 *intorsit* is more emphatic than *involvit.* 127 *spisso cava*, the greater the hollow, the denser the crust. 131 *dat magnum*: see notes 1; and comp. 140. 129 *scissa* i. e. nubes: Isidor. orig. XIII 8 paraphrases this passage: he too seems to have read *missa*: see Lach.: Pliny nat. hist. II 113 *posse et...spiritum nube cohibitum tonare, natura strangulante sonitum dum rixetur, edito fragore cum erumpat, ut in membrana spiritu intenta*, might also seem in favour of the ms. reading *missa*; yet Lach. must I think be right. Epic. himself in Diog. Laer. x 100 foll. gives a brief summary of the possible causes first of thunder, then of lightning, and then of the other heavenly phenomena, πρηστῆρες etc. which Lucr. discusses: the two are generally in close accordance.

132—159: thunder may likewise come from winds blowing through rough branchy clouds; or from the wind bursting the cloud by a direct onset: or waves may break in the clouds, like those on the sea; or the hot bolt may fall into a wet cloud and hiss like hot iron; or into a dry one and make it crackle like bay-leaves in the fire: again the crash of hail and ice in the clouds compressed by the wind may be the cause. 132 *Est ratio, ut*: 639 *Nunc ratio quae sit, per fauces montis ut Aetnae Expirent ignes*: a very rare constr. which Wak. calls 'pervagata dicendi formula'; not needing then illustration, as he gives none: v 715 on the

other hand *Est etiam quare possit* = est etiam ut possit; and is not used as 730 *sit cur*, where *cur* has its proper force. 140 *cum haurit*: see notes 1 to 131 *dat*, and n. to I 566 *cum constant*. 141 *evolvens* = eruens: see Seneca Lucan Plautus in Forc. 147 *trucidet*, a bold and telling metaphor. 148 *Ut calidis* cet.: Pliny II 112 *cum vero in nubem perveniunt, vaporem dissonum gigni ut candente ferro in aquam demerso et fumidum verticem volvi; hinc nasci procellas*: the words are very like those of Lucretius: he just before uses *stridunt*, as Lucr. *Stridit*; but this form of the verb seems to have been always in common use. *olim, ubi*: so Aen. V 125 *olim, ubi*: *olim, cum* is also often so used. 149 *imbrem*: see n. to I 715. 155 *flamma* cet.: Aen. VII 74 *flamma crepitante cremari*. 156 *geli*: see n. to V 205. 158 *confercit*: except in the partic. *confertus*, this verb is rare: for the constr. of this v. comp. n. to III 843; and Catul. XLIV 7 *expuli tussim, Non inmerenti quam mihi meus venter, Dum sumptuosas appeto, dedit, cenas*; LXVI 18 *Non, ita me divi, vera gemunt, iuerint*.

160—172: the flashes of lightning are struck out by the collision of clouds: the flash is seen before the clap is heard, because light travels faster than sound.—From 96 to 159 he has been speaking of the *tonitru*, the clap of thunder: he now 160 to 218 explains the *fulgur* or flash of lightning: then 219—422 he discusses the *fulmina*, the actual strokes or bolts or fires of thunder, or whatever it is to be called: comp. Sen. nat. quaest. II 12 *tria sunt quae accidunt, fulgurationes fulmina tonitrua quae una facta serius audiuntur. fulguratio ostendit ignem, fulminatio emittit. illa, ut ita dicam, comminatio est, conatio sine ictu; ista iaculatio cum ictu*; and 16 *fulguratio est late ignis explicitus, fulmen est coactus ignis et impetu iactus*; and 21 he says the *fulguratio* would be *fulmen, si plus hausisset virium. non natura ista, sed impetu distant*; and 57 3 *fulmen est fulgur intentum*. βροντή, ἀστραπή, κεραυνός are the corresponding Greek words. 160 *Fulgit*: Sen. l. l. 56 2 *illo verbo utebantur antiqui correpto, quo nos producta una syllaba utimur; dicimus enim ut* splendēre *sic* fulgēre. *at illis ad significandam hanc e nubibus subitae lucis eruptionem mos erat correpta media syllaba uti, ut dicerent* fulgĕre. Lucretius' practice seems to bear out what he says: 160, 174, 214, 218 *fulgit*; 165 *fulgĕre*: also V 1095 *Fulgĕre, cum coeli donavit plaga vapore*, is virtually in point: but II 27, where see note, V 768 *fulget*; VI 213 *quae faciunt flammae fulgere colores*; II 800 *refulget*: I confess that on a point like this I prefer the authority of Seneca backed up by our mss. to that of Lachmann who arbitrarily changes the 2nd conj. of the mss. to the 3rd just in those cases where Seneca and common usage support the former. Epic. l. l. 101 foll. treats of ἀστραπή or lightning. 164 *tonitrum*: Sen. l. l. 56 *nos tonitrua pluraliter dicimus, antiqui autem* tonitrum *dixerunt aut* tonum.

166 there is a slight anacoluthon here: *visum quae moveant* for *ad visum*; so that you must supply *adveniunt* [res quae aures moveant] *quam* [ad visum] *visum quae moveant res*. Wherever the point depends on an inference from personal observation, Lucretius, as here, puts it well and clearly and truly. Pliny I 142 *fulgetrum prius cerni quam tonitrua audiri, cum simul fiant, certum est, nec mirum, quoniam lux sonitu velocior*. 168 *arboris auctum* seems a poetical periphrasis for *arborem*; but it probably implies at the same time a large object; as II 482 *infinito corporis auctu*; V 1171 *mirando corporis auctu*. 170 *fulgorem*: Lach. quotes Cic. de div. II 82 *fulgoribus* in a translation from Homer, and Aen. VIII 524 *fulgor* for lightning; but he adds that Lucr. here and 217 uses it in its literal sense, rather than in that of lightning: the latest editor reads in Cicero's prose l. l. 43 *fulgoribus*, 44 *fulgores*, 49 *fulgoribus*; but in each case the reading seems doubtful. 171 *pariter—eodem*: Pliny l. l. expresses by *cum simul fiant* what Lucr. emphasises in a line and a half.

173—203: I explained before how the wind eddying about within a cloud would hollow it out: well the rapid motion heats this wind; and when it escapes from the cloud, it scatters about its seeds of fire: thus you first see the flash, and then hear the noise: this takes place when the clouds are piled up high one on the other: the winds within these make a great roaring and gather flame within them, as in a furnace, till at last they burst out. 176 *Fecit ut ante cavam docui*: Lamb. compares for the involved structure I 758 *quid a vero iam distet habebis*: see also VI 158 *cum confercit franguntur in artum Concreti montes*; and n. to III 843. *ante*, i. e. 124 foll. *spissescere*, a rare word found also in Celsus. 177 *Mobilitate* cet.: another acute inference drawn from personal observation. 179 *volvenda*: see n. to V 514. *liquescit*: Sen. nat. quaest. II 57 2 *sic liquescit excussa glans funda et adtritu aeris velut igne distillat*; Ovid met. XIV 825 *lata plumbea funda Missa solet medio glans intabescere caelo*; Lucan VII 513 *ut calido liquefactas pondere glandes*. 182 *nictantia*: the fitful force with which the seeds are driven out cause this bickering. 184 twice before we have had *oculorum lumina*, and once *oculorum lumine*. 186 *impete*: see n. to IV 416. 187 *frudi*: Aen. IV 675 *frude* P; ecl. IV 31 *frudis* R: for *frudare* and *defrudare* in Terence and Plautus see Ritschl trin. 413 and parergon p. 541. 188 *lata, extructa*: on these neuters referring to *nubibus* comp. 757 *Quadripedes*, 759 *si sint mactata*; and n. to I 352 *totas*, referring to *arbusta*: on the other hand 215 *eas*, though *nubila*, not *nubes*, immediately precedes. *quid* = quantum. 189 *Contemplator enim, cum* occurred II 114. *adsimulata*, and *simulata* in same sense, always spelt in our mss. with *u*. 191 *cumul. Insuper aliis alia*: 521 *aliis aliae nubes nimbique rigantes Insuper..feruntur*; 1283

suos consanguineos aliena rogorum Insuper extructa.. locabant; auctor dirarum 170 *Purpureos flores, quos insuper accumbebat*: for *insuper* with accus. and abl. in Cato and Vitruvius see Foro. 193 *sepultis*: Cicero has more than once *bellum sepultum*. 195 *Speluncasque*: Ennius (?) in Cic, Tusc. disp. I 37 *Per speluncas saxis structas asperis pendentibus*; Aen. I 166 *scopulis pendentibus antrum*. 197 for rhythm comp. n. to II 1059. *magno* cet., 199 *fremitus*: Aen. I 55 *Illi indignantes magno cum murmure montis Circum claustra fremunt*. 199 *fremitus*, keeping up the illustration of wild-beasts. 201 *convolvunt*: comp. Sen. epist. 94 67 *turbinum more qui rapta convolvunt, sed ipsi ante volvuntur et ob hoc maiore impetu incurrunt*. 197—203 are a good example of Lucretius' powers of graphic description.

204—218: fire of a clear gold colour sometimes darts down to the earth, because the clouds have in them many atoms of fire, and draw many from the sun; when therefore they are compressed by the wind, they emit these seeds of flame without noise or disturbance. 204 *Hac etiam fit uti de causa* = hac etiam de causa fit uti: comp. 727 and n. to II 1004. 205 *liquidi ignis* compared by Macrob. with Virg. ecl. VI 33 *Et liquidi simul ignis*: 349 *liquidus quia transvolat ignis*. 206 *ipsas* opposed to the *Quin etiam solis* of 209. 211 *contrusit, Compressit, cogens* his favourite pleonastical assonance; followed by *expressa* which answers to *compressit*. 213 *fulgĕre*: see n. to 160 *Fulgit*, and II 27 *fulget*: Lach. to maintain his own consistency in regard to the conjugation of *fulgere* forces on Lucr. a monstrous inconsistency; for *fulgore* can only mean that the atoms of fire produce the colour of flame by their own brightness, though Lucr. in II took such vast pains to prove that atoms could not have colour or any other secondary quality: the atoms by their action 182 *faciunt nictantia fulgura flammae*, and 217 *faciunt fulgorem*: so here too *faciunt flammae fulgere colores*, which is the same thing. 216 *ingratis*: see n. to III 935.

219—238: the marks left by the thunderbolts themselves prove them to be of the nature of fire: this fire consists of atoms of extreme fineness, which nothing is able to stop: they are far more powerful than those of the sun.—He now, as we observed at 160, comes to the *fulmina*, having discussed first the *tonitru* or clap, and then the *fulgur* or flash: see n. to 160, where this was fully illustrated. 220 *ictus*, like *vulnera* and cognate words, sometimes denotes the result of the stroke as well as the stroke itself: indeed if the results are lasting, as in the cases here specified, it is impossible to separate the two meanings. 221 *halantis* is best taken as the nom. plur.: notae halantes gravis auras sulpuris. *sulpuris*: Pliny XXXV 177 *fulmina et fulgura quoque sulpuris odorem habent, ac lux ipsa eorum sulpurea est*; Sen. nat. quaest. II 53 2

quocumque decidit fulmen, ibi odorem esse sulpuris certum est, qui quia gravis est cet. 224 *dominantur*: 89 and 385 *hinc dominatus ut extulerit se*. 225 *cum primis ignibus* is the same as *cum primis*. Plut. sympos. IV 665 F τὸ κεραύνιον πῦρ ἀκριβείᾳ καὶ λεπτότητι θαυμαστόν ἐστιν, αὐτόθεν περὶ τὴν γένεσιν ἐκ καθαρᾶς καὶ ἁγνῆς ἔχον οὐσίας κ.τ.λ. 228 *Transit* cet.: comp. I 489 *Transit enim fulmen caeli per saepta domorum, Clamor ut ac voces* with 354 *Inter saepta meant voces et clausa dom. Transvolitant*; II 384 *caelestem fulminis ignem Suptilem magis e parvis constare figuris Atque ideo transire foramina quae nequit ignis Noster hic* cet. 230 *liquidum* cet.: Sen. nat. quaest. II 31 *loculis integris conflatur argentum. manente vagina gladius ipse liquescit* cet.; and so Pliny II 137 *aurum et aes et argentum liquatur intus* cet. 231 *Curat* cet.: Pliny l. l. *fulminum ipsorum plura genera traduntur...tertium est quod clarum vocant, mirificae maxime naturae, quo dolia exhauriuntur intactis operimentis nulloque alio vestigio relicto. Curat, Diffugiant* is a constr. sufficiently attested, as by Hor. od. I 38 5 *nihil adlabores Sedulus, curo*; sat. II 6 38 *Imprimat his cura*. 233 *Conlaxat* seems not to be found elsewhere. *rareque facit*: comp. 962 the yet bolder *et facit are. lateramina* does not elsewhere occur except in Marcianus Capella's quotation: the meaning must be guessed, but can hardly be doubtful. 236 *aetatem* thus used is common in Plautus and Terence, and appears to have been a conversational idiom like our 'an age'.

239—245: now to explain the origin and prodigious force of thunderbolts. 240 *discludere*: III 171 *Ossibus ac nervis disclusis intus*. 242 *monim. vir.*: Aen. VIII 311 *singula laetus Exquiritque auditque virum monimenta priorum*; 356 *Reliquias veterumque vides monimenta virorum. demol. atque crem.*: Livy XXVIII 19 12 *cremata et diruta urbe*: to burn what will burn, and throw down what will not. 245 *neque* cet.: V 91 *ne te in promissis plura moremur*.

246—322: that thunderbolts are formed in dense masses of clouds our eyesight tells us: the wind gathers the seeds of fire in these clouds, and gets ignited by them and the heat from its own rapid motion, till it bursts forth with flashes and loud rattlings followed by heavy rain: sometimes a wind from without bursts a cloud charged with thunder: sometimes the wind gets fired on its journey, losing some of its own atoms and gathering from the air atoms of fire: sometimes the mere force of its blow strikes out fire, as cold steel strikes fire out of a stone; though the wind after such rapid motion can never be quite without warmth. 250 *Quod* introduces not the cause, but merely an illustration of the case in point, as III 208 *Haec quoque res etiam naturam dedicat eius,...Quod simul atque* cet.: see n. there: IV 211 *Quod simul ac primum sub diu splendor aquai Ponitur* cet.; V 285 *id licet hinc cognoscere possis, Quod simul ac primum nubes* cet.: VI 335 *Deinde, quod*

cet. is also essentially similar. 251—254 = IV 170—173. 255 *commoliri tempestas fulmina* probably suggested to Virgil *Fulmina molitur* in the passage quoted to IV 172. 257 *Ut picis* cet.: 426 *tamquam demissa columna In mare de caelo*, and 433. 258 *trahit atram* cet.: Virg. geor. I 323 *Et foedam glomerant tempestatem imbribus atris Collectae ex alto nubes.* 259 *tempestatem* comprises all ingredients of the storm; *procellis* are furious winds: 124 *validi venti conlecta procella*; 293 *discidio nubis ventique procella*; Sen. nat. quaest. v 12 2 *et erumpit in ventum qui fere procellosus est.* 266 *venientes* i. e nubes, understood from 268 *nubibus* in the dependent clause: a favourite usage of Lucr.: see n. to I 15: with *venientes* comp. I 285 *venientis aquai*: the object of *opprimere* is of course the *terras* of 264. 267 *cam. nat.*: see n. to v 488. 268 *extructis foret nubibus*: with this abl. comp. II 909 *Aut simili* [sensu] *totis animalibus esse putari*; III 620 *Atque ita multimodis partitis artubus esse.* 271 *supra*, i.e. 206 and 209. 276 *cūm eo*: see n. to II 404. 278 *acuit*, poetically treating it as a bolt, βέλος, *telum.* 279 *sua cum mobil.*: see n. to I 287. 285 *sonitus* cet.: 294 *ardenti sonitus cum provolat ictu*; comp. II 1100 *caelique serena Concutiat sonitu*, and n. there. 287 *tremor pertemptat*: Virg. geor. III 250 *Nonne vides ut tota tremor pertemptet equorum Corpora.* 290 *de* = ex: both after and in consequence of: Ovid met. x 49 *incessit passu de vulnere tardo*; trist. III 3 82 *Deque tuis lacrimis umida serta dato.* 291 *Omnis* cet.: Virg. geor. I 324 *ruit arduus aether*; Aen. v 695 *ruit aethere toto Turbidus imber aqua*; Martial III 100 3 *Imbribus immodicis caelum nam forte ruebat.* 292 comp. v 255 *Pars etiam glebarum ad diluviem revocatur.* 295 *Est cum*, ἔστιν ὅτε: his contemporary the auctor ad Heren. II 30 *est cum complexione supersedendum est...est cum exornatio praetermittenda est*; IV 36 *est cum non est satius, si* cet.; Hor. epist. II 1 63 *Interdum vulgus rectum videt, est ubi peccat.* 297 *igneus ille Vertex* appears to be forked lightning. 298 *quem*: see n. to III 94. 301 *Igniscat*: the mss. of Cicero and Virgil write *ignesco.* 302 *Dum venit, amittens*, 304 *Atque...portat*: a change from the participle to the finite verb, an idiom so common in Greek: see also n. to v 383. 306 *plumbea* cet.: Ovid met. II 727 *cum Balearica plumbum Funda iacit. volat illud et incandescit eundo*: comp. too n. to 178 *plumbea* cet. 313 *ex illa quae tum res*: see n. to I 15. 316 *ad ictum*: comp. I 185 *Seminis ad coitum*, and n. there. 319 *tem. om. plane*: comp. n. to II 1060 *temere incassum frustraque.*

323—378: the thunderbolt derives its velocity from a union of causes: it acquires momentum within the cloud: as it bursts out of it, this is increased on the principle of missiles discharged from an engine: its atoms are extremely fine; add to this the natural tendency downward, which increases continuously; perhaps too it is aided by blows

from atoms which it gathers to itself in the air: its subtle atoms pass through the pores of some things; burst asunder others; melt others. In autumn and spring thunder is most frequent, because then there is a mixture of heat and cold, of fire and wind, as well as moisture; all of which are needed to forge it. 324 *percurrunt*, i.e usque ad finem currunt: this absolute use of the word which is rare enough, is most learnedly illustrated by Lach.: v 1407 *supera calamos unco percurrere labro*; but iv 588 *Unco saepe labro calamos percurrit*; Proper. iii (ii) 16 49 *Vidistis toto sonitus percurrere caelo.* 326 *con. sumit*: 1041 *partem in vacuam conamina sumpsit.* 327 *inpetis* he uses only here, fond as he is of *impete*: notice 327 *inpetis*, 328 *impete*, 334 *impete*, 337 *impetus*, 340 *impete.* 333 *in remorando* has precisely the force of a pres. partic., remoratur et haesitat: iv 720 *in remorando Laedere ne possint ex ulla lumina parte.* 335 *quod* does not assign the cause, but merely states the fact, and is like in principle to the cases given in n. to 250 and iii ~~208~~. 211 339 *itiner*: see n. to v 653 *itere.* 341 *Mobilitatem* cet.: Aen. iv 175 *Mobilitate viget viresque adquirit eundo.* 344 *E regione*: iv 374 *e regione eadem nos usque secuta*: comp. also vi 742, 823, 833; and Cic. de fin. i 19 and de fato; where *ad lineam* and *rectis lineis* are given as synonymes for it: it is merely an extension to a thing in motion of the common meaning, 'over against', 'directly opposite'. 345 *volventia*: comp. v 931 *per caelum solis volventia lustra*, and n. there. 347 *incendunt* is much more poetical that the old vulgate *intendunt*: Wak. and Lach. comp. Virgil's *pudor incendit vires, Illam incendentem luctus.* 350 *perfringit*, because it falls on all the joinings of the thing, and so breaks it up into its constituent atoms: *perfigit* clearly can have no such force. 351 *texta* is here the partic. agreeing with *corpora rerum* rather than the subst. which elsewhere he uses. 352 *Dissoluit*: see 230. 353 *Confervefacit* seems not to occur elsewhere. 357 *st. fulg. apt.*: Enn. ann. 30 *Qui caelum versat stellis fulgentibus aptum*; 162 *Caelum suspexit stellis fulgentibus aptum*; 343 *nox processit stellis ardentibus apta*: the last phrase is twice used by Virgil. 358 *caeli domus*: Hor. od. ii 12 8 has *Fulgens contremuit domus Saturni veteris.* 359 comp. i 10 *simul ac species patefactast verna diei*; and Manil. ii 182 *alter florentia tempora veris Sufficit.* 364 *fretus* expresses at once the strait joining two seas and the swell and surging common in such cross-seas: for the form see n. to i 720 *fretu.* 365 Lach. compares Manil. i 852 *Sunt autem cunctis permixti partibus ignes, Qui gravidas habitant fabricantes fulmina nubis.* 369 *quare*: therefore in the spring as there is this mixture of heat and cold, there must be going on the struggle which produces thunder. Lach. refines, nor is his refinement true: 'quaeritur' he says 'quare calor et frigus inter se pugnent: id enim non fit quia ver est, sed quia *Prima pars*

caloris est postrema rigoris': the second *quia* is at least as untrue as the first: heat and cold fight because they are together; and therefore in the spring, as also in the autumn. 370 *turbare* is neut.: see n. to II 126. 374 *Propterea freta* cet. refers to 364 *Nam fretus ipse anni* cet. *nominitanda*: this word five times used by Lucr. seems scarcely to be found elsewhere.

379—422: such is the true explanation of thunder, not the follies taught in the Tuscan rolls: if the gods do hurl the bolts, why do they pass over the guilty and so often strike the innocent? why does Jupiter thunder only when the sky is clouded? why does he waste his bolts on the sea? why not tell us to beware, if he wishes us to escape? why thunder, if he wishes to take us unawares? how can he hurl at once in so many places? why destroy his own temples and statues? why so often strike the mountain-tops? 379 *Hoc*, what I have just said: Wak. prefers to take *hoc* as the abl. 'ut magis Lucretianum'; so that *est* will be for *licet*, a sense it never bears in Lucr. and the older writers: see notes 1 to v 533. 380 *Perspicere* and *videre* have, as so often in Lucr., the force of substantives: see 415 416 and n. to I 331: *Perspicere* cet. *est hoc, non..perquirere* cet. *ipsam*, in its reality. 381 *Tyrrhena* cet.: see Cicero and Pliny quoted in notes to 86 foll. and Sen. nat. quaest. II 32 *quid, quod futura portendunt* cet. *hoc inter nos et Tuscos quibus summa est fulgurum persequendorum scientia interest: nos putamus, quia nubes conlisae sunt, fulmina emitti. ipsi existimant nubes conlidi ut fulmina emittantur. nam cum omnia ad deum referant, in ea opinione sunt, tamquam non quia facta sunt significent, sed quia significatura sunt fiant*: Cic. de div. I 72 speaks of the *Etruscorum et haruspicini et fulgurales et rituales libri*. *retro volventem* 'shew that in his time the Etruscan books were still read in the original, from right to left, *retro*' Niebuhr hist. I p. 111 n. 341: I should have thought it simply meant unrolling, volumina evolventem, retroversum volventem. 'I will remark by the way that by *indicia mentis* Lucr. means to explain *indigitamenta*' ibid.: but I do not find that the Etruscan books, which are here in question, had anything to do with these *indigitamenta*; which appear on the contrary to have belonged to the purest form of the old Roman worship. 383—385 = 87—89, which were copiously illustrated. 386 *de caelo*: see n. to II 51.

388 comp. Terence quoted to II 1100. 390 *quibus incautum scelus est* i.e. qui non caverunt scelus: Tac. ann. I 50 *hostibus incautum* [iter]. *aversabile* seems to occur only here. 392 *perfixo*: see n. to II 360: with this and 395 *Turbine* cet. comp. Aen. I 44 *Illum exspirantem transfixo pectore flammas Turbine corripuit*. *documen* seems to be in apposition with the preceding sentence: Socrates in the clouds 399 feels the same difficulty, Εἴπερ βάλλει τοὺς ἐπιόρκους, πῶς οὐχὶ Σίμων' ἐνέπρησεν Οὐδὲ Κλεώνυμον οὐδὲ Θέωρον; καίτοι σφόδρα γ' εἴσ' ἐπίορκοι. 393 *sibi*

conscius in re appears to be like Cic. ad Att. I 18 1 *mihi in privatis omnibus conscius*, quoted by Forc.: he is self-conscious in the thing, that is conscious that he has done it. 395 comp. V 1231 *violento turbine saepe Correptus.* 390—396 are expressed more briefly II 1102 foll. 396 *Cur etiam loca sola* cet., 404 *In mare qua* cet., 421 *Altaque cur plerumque* cet.: Cic. de div. II 44 is so like in expression that he would seem to have had Lucretius' lines in his memory: *scilicet si ista Iuppiter significaret, tam multa frustra fulmina emitteret! quid enim proficit, cum in medium mare fulmen iecit? quid, cum in altissimos montis, quod plerumque fit? quid, cum in desertas solitudines?* 397 *consuescunt*: see n. to IV 1282 *insuescat te.* 402 *simul ac nub. succ.*: V 286 *simul ac nubes primum succedere soli Coepere.* 403 *determinet*, mark the point to which they are to go. 404 *quid.. arguit* = de quo, cuius: it may be called the cognate accus.: this use of the neut. pron. is of very extended application in Latin. 405 *cam. nat.*: see n. to V 488. 410 *concit*: see n. to I 212 *cimus.* 411 comp. Cic. l.l. *esset mirabile quomodo id Iuppiter totiens iaceret, cum unum haberet; nec vero fulminibus homines quid aut faciendum esset aut cavendum moneret.* 413, 416 *uno sub tem.*: Ovid fasti V 491 *haec tria sunt sub eodem tempore festa.* 415 *pluere*, 416 *fieri* are used as subst.: see 380, V 979 *Non erat ut fieri posset mirarier*; and n. to I 331: just above he has *factum, Ut fierent*, the usual constr.: notice the indifference with which he repeats *fieri, fieri*; *factum fierent*: 727 he has *fit uti fiat*, 729 *fit uti fiant.* 417 foll.: II 1101 more briefly *fulmina mittat et aedis Saepe suas disturbet*: Socrates l.l. Ἀλλὰ τὸν αὑτοῦ γε νεὼν βάλλει καὶ Σούνιον ἄκρον Ἀθηνῶν: Cic. l.l. 45 and I 19 quotes his own verses, *Nam pater altitonans stellanti nixus Olympo Ipse suos quondam tumulos ac templa petivit Et Capitolinis iniecit sedibus ignis. Tum species ex aere vetus...Et divom simulacra peremit fulminis ardor.* 421 *eius* is the gen. after, not agreeing with *ignis.*

423—450: presters are thus formed: if the wind cannot break the cloud, it forces it down in the shape of a column to the sea, where it bursts and causes a furious boiling and surging: sometimes the whirlwind will gather up atoms of cloud and wrap them round, and will so imitate a real prester: this will shew itself sometimes on land, but oftener on the sea.—Epic. in Diog. Laer. X 104 explains these *presteres*: Pliny II 131—134 will throw more light on Lucr. 430 *Navigia* cet.: Pliny l.l. 132 *praecipua navigantium pestis, non antemnas modo verum ipsa navigia contorta frangens*; Sen. nat. quaest. V 13 3 *totae naves in sublime tollantur.* 431 *Hoc fit* cet.: the wind having become fiery by its rapid motion in the cloud cannot burst it; if it could, it would then be *fulmen*, as explained above so fully; but not being able to break the cloud, it pushes it down to the sea in the way described:

Lucr. seems to assume that the word πρηστήρ will indicate its fiery nature without further specification. With this, and what follows, 438 *Versabundus enim turbo* cet., 443 *venti Vertex,* 447 *Turbinis—procellae* comp. Pliny l.l. 133 *quod si maiore depressae nubis eruperit specu, sed minus lato quam procella nec sine fragore, turbinem vocant proxima quaeque prosternentem; idem ardentior accensusque dum furit, prester vocatur amburens contacta pariter et proterens...quod si simul rupit nubem exarsitque et ignem habuit, non postea concepit, fulmen est. distat a prestere quo flamma ab igni; hic late funditur flatu, illud conglobatur impetu. vertex autem remeando distat a turbine et quo stridor a fragore; procella latitudine ab utroque, disiecta nube verius quam rupta*: Seneca l.l. *hic ventus circumactus et eundem ambiens locum ac se ipsa vertigine concitans turbo est. qui si pugnacior est ac diutius volutatur, inflammatur et efficit quod prestera Graeci vocant: hic est igneus turbo.* 432 *coepit*: see n. to I 55 *incipiam*, and comp. *coeptum*. 438 *Versabundus*: 582 *Versabundaque portatur.* 439 *cum*: see n. to I 755. 440 *simul ac gravidam*, the only instance in Lucr. of *ac* before a guttural: for the reason of this exception see n. to I 281. 443 *involvat* cet. i.e. does not get enclosed in the dense clouds, but eddying about catches up stray particles of cloud and makes a case for itself. 446 *Hic* refers to *prestera* of 445; though it may include the imitation, as well as the genuine *prester*. 447 *Turbinis* and *procellae* as well as *vertex* are discriminated by Pliny cited above: *turbinis* then will denote the tornado in the neighbourhood of the place where the *prester* bursts; *procellae* the storm of wind spreading itself far and near. 447 *provomit* appears not to occur elsewhere. 450 *Prosp. maris in magno* i.e. in mari quod late prospectum praebet: Ovid her. x 27 *atque ita late Aequora prospectu metior alta meo.*

451—494: clouds are thus formed: first many particles in the sky get entangled and form small clouds; and then these unite, until the sky is overcast: thus high mountains are seen to smoke with mist, because the small particles of cloud are first carried to these by the wind: then moisture steams up from the sea and rivers; and the pressure of the ether above condenses it: finally many atoms, flying as I have shewn through space, come into this heaven of ours, and increase the mass from all sides.—Epic. in Diog. Laer. x 99 gives a brief explanation of clouds, agreeing essentially with this of Lucr. 453 *moris*, properly whatever holds or detains, and thence it has the force of *nexus*: Lach. compares 531 *mora quae fluvios passim refrenat euntis*; Aen. x 485 *Loricaeque moras*; and refers to Sen. de benef. v 12 2 *quia commissuras eorum et moras novit*: comp. also Plaut. Stichus 309 *fores facite ut pateant: removete moram.* 456 *haec* is fem. plur. as it appears to be III 601; but see n. there: *hae* does not occur in Lucr., and in his time

haec must have been the usual form, and is sometimes preserved in the best mss. of Cicero Virgil Livy and others. *comprendunt inter se* = mutuo se comprendunt: comp. I 787 *inter se mutare*, and n. there. 458 *temp. saeva co.*: Virg. geor. III 478 *miseranda coorta est Tempestas*, with quite another sense. 460 *Quam quoque magis*: comp. III 700 *Tanto quique magis*, and n. there. 474 *quoque* clearly belongs in strictness to *multa* or *e salso momine*: see n. to V 192. 482 comp. V 466 *Corpore concreto subtexunt nubila caelum*. 483 *huc*, into the heaven of our *mundus* from some other part of space. 485 *numerum* of *corpora* or atoms. *inn. num.*: II 1054 *Seminaque innumero numero summaque profunda Multimodis volitent*; but here *summam profundi* refers to infinite space: so *spatium profundi* more than once. 486 *docui*, the former point I 1008—1051; the latter 988—1007. 487 *ostendi*, II 142 foll. 488 comp. IV 192 *Inmemorabile per spatium transcurrere posse*. 491 *inpensa* = quae inpendent: see n. to II 363.

495—526: rain comes in this way: many particles of matter rise with the clouds from all things; then the clouds suck up much moisture from the sea and rivers: thus the clouds both by their own weight and the pressure of the wind emit rains; and these are increased by the sun helping to dissolve the clouds: rains are heavy and lasting, when these causes combine, and the reeking earth sends its moisture back: the rainbow comes from the sun shining right upon a mass of cloud. 496 *ut imber*: 1099 *Aut extrinsecus ut nubes nebulaeque* cet. 499 *utrumque Et nubis et aquam*, like the ἀμφότερον of Homer and the Greeks: Plaut. cistell. I 3 1 *Utrumque haec et multiloqua et multibiba est anus*; Gratius cyneg. 333 *Utrumque et prudens et sumptis impiger armis*: sometimes *utrumque* is put at the end; as Lucil. XI 1 *Et formosus homo fuit et famosus utrumque*; auctor dirarum 96 *Sive eris, et si non, mecum morieris utrumque*. 503 *Concipiunt* i.e. nubila, understood from the accus. *nubila* of 505: see n. to I 15. 507 *bene* cet. i.e. bene multa semina. 512 *de supero*: comp. *de subito* and the like: it is the older and correcter form of *desuper*. 513 *rarescunt* cet.: 214 *Fulgit item, cum rarescunt quoque nubila caeli; Nam cum ventus eas leviter diducit euntis Dissoluitque* cet. 514 *super* = insuper: see n. to I 649. 517 *utraque*, as in IV 86 and 291. 518 *vi cumulata* = 511 *Copia nimborum turba maiore coacta*: with the expression comp. 734 *nubes coguntur vique premuntur*. 519 *tenere*: Lach. compares Livy XXIII 44 6 *imber continens per noctem totam usque ad horam tertiam diei insequentis tenuit*; and refers to Duker on IV 7 7 and VI 35 10 who quotes several other examples of the same use, II 3, III 19, XXIII 44, XXIV 47, XXV 39, XXXIII 22, XXXVI 43. 521 *aliis aliae...Insuper*: comp. 191 *cumulata videbis Insuper esse aliis alia*; and n. there. 523 *redhalat* seems not to occur elsewhere: for form comp.

redhibeo: *rehalo* of old eds. is a barbarism. 525 *Adversa asp.* = aspargini nimb. ex adverso. *aspargine*: comp. I 719 *aspargit*, and n. there. 526 *arqui*: the best mss. of Cic. de nat. deor. III 51 have the same form.

527—534: all other like things, whether existing by themselves or formed in the clouds, snow wind hail frost, may be all easily explained, if you understand the properties of atoms. 527 *sorsum crescunt* is intended to be a verbal as well as real antithesis to *concrescunt*. 530 *geli*: see n. to V 205. *mag. dur. aq.* and 531 *Et mora* cet. are different expressions for the same thing and are both explanations of the *vis geli*: the iteration is designed to be emphatic: Virg. geor. IV 136 *glacie cursus frenaret aquarum*. 531 *mora*: see n. to 453. 532 *tamen*, notwithstanding their number and variety, they may yet be all readily explained. 533 *quareve* = quareque: see n. to I 57.

535—556: earthquakes have more than one cause: underground are caverns rocks rivers lakes: well when any of these caverns tumble in, whole mountains may fall and shake the earth: or if a mass of earth tumble into the large pools of water, the oscillation of the water may make the earth reel.—Epic. in Diog. Laer. X 105 106 attributes earthquakes to somewhat similar combinations of causes, and adds in his usual way *καὶ κατ' ἄλλους δὲ τρόπους πλείους τὰς κινήσεις ταύτας τῆς γῆς γίνεσθαι*: Seneca devotes the whole of the sixth book of his nat. quaest. to the same subject: chap. 20 recounts first the theories of Democritus, and then of Epicurus: Seneca here and in what precedes and follows illustrates Lucr. better than Epicurus does, having had access of course to larger works of the latter: *veniamus nunc ad eos qui omnia ista quae rettuli in causa esse dixerunt aut ex his plura. Democritus plura putat. ait enim motum aliquando spiritu fieri, aliquando aqua, aliquando utroque*, just as Lucr.: then 20 5 *omnes istas posse esse causas Epicurus ait pluresque alias temptat et alios qui aliquid unum ex istis esse adfirmaverunt corripit* etc.: he then proceeds to employ wind and water in much the same way as Lucr. does. 538 and 552 *lucunas*: see n. to III 1031. 538 *lucunas*, to distinguish it from *lacus*, may mean here chasms not filled with water, a sense it often bears, though 552 he says *in magnas aqüae vastasque lucunas*; which would also shew that *lucunas* cannot well mean small pools in contradistinction to *lacus*; so that in fact it may be a mere poetical tautology, as 539 *rupes deruptaque saxa*. 542 *similem* cet.: this appears to follow from Epicurus' *ἰσονομία* or as Cicero de nat. deor. I 50 translates it *aequabilis tributio. ut omnibus omnia paribus paria respondeant*. 543 *subi. supp.* must surely have their literal sense, referring to what he has just said is below ground. Creech plainly and Lamb. apparently take the meaning to be, 'those points being assumed and taken for granted': the latter

says τούτων δὴ ὑποκειμένων καὶ ὑποτεθέντων: but I find no authority whatever for giving the Latin words the metaphorical meaning which these Greek words have, and Lamb. may have used them too in their literal sense. **544** *superne tremit* cet.: so Epic. according to Seneca l. l. *fortasse aliqua pars terrae velut columnis quibusdam ac pilis sustinetur, quibus vitiatis ac recedentibus tremit pondus impositum.* **547** *disserpunt* I find only here. **549** *non magno pondere* and *tota* gain point and force by being placed together and divided from *plaustri* and *Tecta* respectively; but yet the wide separation of *plaustri* and *non magno pondere* is harsh. **550** *scrupus viai* would be a rough loose stone on the public way. **551** Virg. geor. III 361 has *ferratos sustinet orbes*, just following another imitation of Lucr. *succutit*: Ovid met. II 166 *Succutiturque alte similisque est currus inani.* **552** *aqüae*: so 868 *aqüae*, 1072 *aqüai*: 'similiter Horatius, isque unus inter omnes, *siluae* tribus syllabis dixit' Lach.: but there there is a difference in quantity, and *silüae* more resembles the *solüo dissolüo* which so often in Lucr. alternate with *solvo dissolvo*: he also compares *larüa larva*, *milüus milvus*: his examples of *aqüa* from Plautus and others are very uncertain; neither Ritschl nor Fleckeisen I see recognises the one from the *miles*. **554** *aquae fluctu quoque*, as well as *the other causes given above*: but this second *quoque* is not wanted.

557—576: again when the wind underground presses on these caverns, the earth above leans in the same direction, so as to bring things within an ace of destruction; a presage of the earth's total ruin, which must come one day.—With this and the next paragraph comp. Seneca l. l. 20 7 *nullum tamen illi* [Epicuro] *placet causam motus esse maiorem quam spiritum. nobis quoque placet hunc spiritum esse qui possit tanta conari.* **561** *extr. dom.*: see n. to 1283 *aliena rogorum extructa.* **562** i.e. quantoque magis cet., tam magis inclinata cet. **563** *tument*, as a wall does on the side towards which it leans. *prodita* = *proiecta* or *procumbentia*: 606 it has the same meaning, but is there more emphatic. **565** *Et metuunt* = et dubitant: Catul. LXIV 146 *Nil metuunt iurare, nihil promittere parcunt*: comp. Virg. geor. II 433 *Et dubitant homines serere atque inpendere curam?* Aen. VI 806 *Et dubitamus adhuc virtute extendere vires!* **568** *vis nulla* cet.: I 850 *neque ab exitio res ulla refrenat.* **569** *reprehendere*: III 599 *Extremum cupiunt vitae reprae-hendere vinclum*: a common sense, as Cic. acad. pr. II 139 *revocat virtus vel potius reprendit manu*; Livy XXXIV 14 8 *adeo turbati erant dextrae alae pedites equitesque, ut quosdam consul manu ipse reprenderit et aversos in hostem verterit.* **570** *Nunc*: see n. to I 169. **571** all the terms are military. **573** *facit*: I 740 *fecere ruinas*: it is the same as *dat ruinas*. *recellit* = reclinat: Festus p. 274 '*recellere* reclinare, et *excellere* in altum extollere': so II 219 Lachmann's fine emendation

decellere = declinare. 574 *prolapsa* answers to *inclinatur, recipit sedes in pondere* to *retro recellit*: falling forward out of its place is the natural force of *prolapsa*: see Forc. and comp. 1006 *primordia ferri In vacuum prolapsa cadunt coniuncta*: *recipit sedes in pondere* then is a proper expression, not *prolapsa in pondera*: a thing *prolabitur trans pondera*, tumbles beyond its balance or centre of gravity: Lach. well illustrates this sense of the plur. *pondera*: II 218 *Ponderibus propriis . . decellere paulum*: but when he adds 'sed *pondus* singulari numero ita dici non posse Turnebus [advers. IV 17] recte observavit', he and Turnebus are both greatly mistaken: Ovid met. I 12 writes *Nec circumfuso pendebat in aere tellus Ponderibus librata suis*, and Lucan I 57 *Sentiet axis onus; librati pondera caeli Orbe tene medio*; but then with precisely the same force Manil. I 173 has *Quodni librato penderet pondere tellus*, Petron. sat. 124 v. 264 *Sentit terra deos mutataque sidera pondus Quaesivere suum*: Hor. epist. I 6 51 says *cogat trans pondera dextram Porrigere*; but then with just the same meaning Petron. 136 *fracta est putris sella, quae staturae altitudinem adiecerat, anumque pondere suo deiectam super foculum mittit*: reason and authority are both for *pondere*. 576 *perhilum* seems a ἅπαξ λεγόμ.

577—607: again when wind and air enter from without or rise up from the ground into these caverns, after eddying about they sometimes cleave the crust of earth and swallow up whole towns; or, if they do not break through, yet they cause the earth to quake, and excite in men a feeling that the world will one day perish.—Epicurus in Seneca l. l. seems briefly to allude to the same cause: *potest terram commovere impressio spiritus*: *fortasse enim aer alio intrante aere agitatur*. 577 *haec eiusdem quoque*: *quoque* seems manifestly to belong to *haec*: haec quoque causa est eiusdem cet.: see n. to V 192: he appears not to avoid allowing one or more words to come between *quoque* and the word to which it belongs: see also n. to IV 532. 579 *ipsa tell.*: see n. to IV 736. 584 *concinnat hiatum*: he has also *concinnat fervorem, amorem, id.* 585 *In Syria Sidone* probably alludes to the earthquake which Strabo p. 58 recounts on the authority of Posidonius, καταποθῆναι πόλιν ἱδρυμένην ὑπὲρ Σιδῶνος, καὶ αὐτῆς δὲ Σιδῶνος σχέδον τὰ δύο μέρη πεσεῖν ...τὸ δ' αὐτὸ πάθος καὶ ἐπὶ τὴν Συρίαν ὅλην διέτεινε. *Aegi*: he alludes to the famous earthquake of B.C. 372 which swallowed up Helice and Bura and ten Lacedæmonian triremes moored off the coast: Ovid met. XV 293 *Si quaeras Helicen et Burin, Achaidas urbes, Invenies sub aquis*: it is mentioned by many Greek and Latin writers, by Seneca l. l. more than once, as 23 4 *Callisthenes in libris quibus describit quemadmodum Helice Burisque mersae sunt, quis illas casus in mare vel in illas mare immersit, dicit id quod in priore parte dictum est, 'spiritus intrat terram per occulta foramina* cet.': Lucr. mentions Aegium no doubt because it

was in his time the chief town of Achaia and is near the two in question: Sen. l. l. 25 4 *illa vasta concussio quae duas suppressit urbes Helicen et Burin, circa Aegium constitit*: Lucr. probably had read Callisthenes. 587 *Disturbāt*: see n. to I 70 *Inritat*. 595 *tremere atque movere*: 1190 *nervi trahere et tremere artus*; where Lach. attempts to define when you may or may not use *trahere* or *movere* for *trahi* or *moveri*: if a man's limbs are moved by himself or by a sensible external cause, you must use the passive *membra moventur*; if no cause be apparent, then you may say *membra movent*; and thus *terra movet*, because it has no power of moving itself nor do you perceive why it moves: on this principle he will not III 571 tolerate the *movere* of mss. but reads *moveri* with Lamb.: the same reasoning applies to *trahere* for *trahi*: of course in all cases the passive *may* be used. 601 *Proinde licet quamvis*, 603 *Et tamen*: 620 *Proinde licet quamvis* cet. *tamen*; Cic. de nat. deor. III 88 *quamvis licet menti delubra et virtuti et fidei consecremus; tamen haec in nobis* cet.; Tusc. disp. IV 53 *quamvis licet insectemur istos, ut Carneades solebat: metuo ne soli philosophi sint*; where Bentl. 'bene quidem, quod lectionem hanc *quamvis licet* in textum recepisti. sed dum utramque particulam eiusdem potestatis esse credis, erras cum aliis quibusdam viris doctissimis. *quamvis* enim hic valet *quantumvis*, non *quamquam*': 'they may as much as they please' is the force of the words. 602 *aet. mand. sal.*: II 570 *neque in aeternum sepelire salutem*. 604 *Subdit* cet.: Sen. Agam. 133 *Mistus dolori subdidit stimulos timor*. *qu. de parte*: 820 *Ut spatium caeli quadam de parte venenet*. 605 comp. I 1106 *Terraque se pedibus raptim subducat*. 606 *rerumque* cet.: I 1104 *Et ne cetera consimili ratione sequantur*, 1107 *Inter permixtas rerum caelique ruinas*: *rerum summa* here = haec rerum summa or mundus, as the context shews: see n. to I 1008. He loses no occasion of reminding us how great the delusion of many is in supposing that our world is eternal: this he has refuted at great length in the early part of V: our *mundus* and every other *mundus* will perish as certainly as the universe, the *summarum summa*, will be immortal and unchangeable for everlasting.

608—638: the sea does not grow larger, because its size is enormous compared with the supplies from rivers and springs and rains: the sun and winds too and clouds all draw off much, as they act upon so wide a surface: then as water comes through the porous earth into the sea, it passes in like manner from the sea back to the earth.—Manifestly, as Lach. shews, this paragraph has no connexion in language and not much in meaning with what precedes and follows, and must be a later addition of the poet's, not properly embodied with the rest. 612 *rigant* in sense can only apply to *terras*. 614 *adaugmen* another ἅπαξ λεγόμ.: see n. to I 435 *Augmine*. 615 *magnum* seems intended

by its position to be emphatic, utpote magnum: then *magnam* immediately follows with his usual indifference to such repetitions. 619 *pelage*: v 35 *pelageque severa.* 626 comp. Virg. geor. III 360 *Concrescunt subitae currenti in flumine crustae*, with a quite different application; as is so common in his imitations. *luti concr. crust.*: Frontinus de aquis 122 *aut enim limo concrescente qui interdum in crustam indurescit* cet. 627 *docui*, 473 foll. and 503 foll. 630 *Cum* cet.: Aen. x 807 *Dum pluvit in terris*; where Servius 'si iunxeris *Dum pluit in terris* erit archaismos, debuit enim dicere *in terras.* tamen sciendum hemistichium hoc Lucretii esse cet.': it is better with Lach. to look upon *in terris* as a pleonasm natural in an old writer. 631 *cum*: see n. to I 755. 635—638 = v 269—272, except that for 637 *Confluit, redit* v 271 has *Convenit, fluit*: the reason of the change to *redit* is obvious.

639—646: now to explain the eruptions of Aetna, one of which struck neighbouring nations with such fear and awe. 639 *fauces*: 702 he says that *fauces* and *ora* are the proper Latin terms for craters. 642 *dominata*: *dominantur, dominatus, dominantior* he has already applied in this book to the power of lightning. 646 *moliretur*: Cic. de nat. deor. II 59 *nec ea quae agunt molientium* [deorum] *cum labore operoso ac molesto.* Cicero l. l. 96 thus describes an eruption, *nos autem tenebras cogitemus tantas quantas quondam eruptione Aetnaeorum ignium finitimas regiones obscuravisse dicuntur, ut per biduum nemo hominem homo agnosceret* cet.: what the eruption is or whether it is the same to which the two allude, I do not know.

647—679: to understand such eruptions, reflect that our world is a smaller fraction of the universe than a man is of the whole world: now we are not surprised when a man is seized with any one of numerous diseases, the seeds of which our world supplies: why then wonder that out of the universe should rise up the seeds of these or any other great natural convulsions? if you say the conflagration is here too great to comprehend, I reply that its rarity only makes it so appear; as we are creatures of habit, and wonder at what is strange and cease to wonder at what is common. 649 *summam rerum* has here its proper force: see n. to I 1008. *profundam*: see n. to IV 63. 651 *multesima pars* is quoted by Nonius p. 136, as 'nove posita': Lucr. has formed it on the analogy of *millesimus*, with the sense of πολλοστός. 652 *tota pars, quota* is found in Manil. III 420: *tŏtus* is a very rare word having the same relation to *quotus*, that *totiens* has to *quotiens*. 653 *contueare* means perhaps the act of examining, and *videas* the seeing and understanding which thence results; otherwise the phrase would be very tautological. 660 comp. 1167 *ut est per membra sacer dum diditur ignis*; Celsus v 28 4 *sacer quoque ignis malis ulceribus adnumerari*

debet: he proceeds to describe at length two kinds: above 26 31 and 33 he had described what *ἐρυσίπελας Graeci nominant*; so that if the latter correspond to our erysipelas, the *sacer ignis* must be different: Celsus by *sacer ignis* appears to understand one kind of the *ἕρπης* of the Greek physicians; others certainly make it to be erysipelas, as Isidor. orig. IV 8 4 *erysipelas est quem Latini* sacrum ignem *appellant, id est execrandum per antiphrasim.* 665 *Sic igitur* cet.: as this world is sufficient to supply endless disorders to man; so can the whole universe furnish the materials for endless disorders to our world, such as earthquakes, volcanic eruptions and the like. 666 *Ex inf.* cet.: I 996 *suppeditantur Ex infinito cita corpora materiai*; 1035 *nisi materiai Ex infinito suboriri copia posset.* 669 *Ig. ab. Aetn.*: Sen. nat. quaest. II 30 *Aetna aliquando multo igne abundavit. flammescere* is found in no other writer of authority. *flam. cael.*: Aen. III 574 *Attollitque globos flammarum et sidera lambit*: but *flammescere caelum* and *ardescunt caelestia templa* strike me as somewhat frigid hyperboles in what is intended for a philosophical description, as no one could take the flaming heaven to be anything more than a mere ocular deception; unless indeed Lucr. allude to something like what Seneca l. l. records of the eruption of Aetna: *illo tempore aiunt tunc plurima fuisse tonitrua et fulmina quae concursu aridorum corporum facta sunt, non nubium quas verisimile est in tanto fervore aeris nullas fuisse.* 671 *coortu*: this word, which occurs II 1106, is also Lucretian. 672 *tetulerunt*: this form is common enough in the older writers. 678 *omnia* cet.: not only this fire of Aetna, but all things in the world together with the world itself are as nothing compared with the universe; and should therefore excite no wonder.

680—702: Aetna emits its flames in this way: caverns of rock run under it, full of wind which heats first itself and then the rocks and earth with which it comes in contact, and then bursts out with flame ashes smoke and huge stones: again caverns reach from the sea to the mountain: through these pass from the sea water and wind mixed: this wind and water force up flame and rocks and clouds of sand. 680 *tamen*, after this digression or preface. 681 *Aet. forn.*: Virg. geor. I 472 *undantem ruptis fornacibus Aetnam.* 683 *fere*: see n. to I 14 *ferae* (fere). 689 *rectis*: see n. to II 217. 690 foll.: geor. I 471 foll. and still more Aen. III 571—577 shew many traces of imitation. 697 *hac ire* cet.: Iustin IV 1 will throw much light on the meaning here and shew the nature of the hiatus: *est autem terra ipsa* [Siciliae] *tenuis ac fragilis et cavernis quibusdam fistulisque ita penetrabilis ut ventorum tota ferme flatibus pateat; nec non et ignibus generandis nutriendisque soli ipsius naturalis materia, quippe intrinsecus stratum sulpure et bitumine traditur: quae res facit ut spiritu cum igne in materia luctante*

frequenter et compluribus locis nunc flammas, nunc vaporem, nunc fumum eructet. inde denique Aetnae montis per tot saecula durat incendium, et ubi acrior per spiramenta cavernarum ventus incubuit, harenarum moles egeruntur...eadem causa etiam Aetnae montis perpetuos ignes facit. nam aquarum ille concursus raptum secum spiritum in imum fundum trahit atque ibi suffocatum tam diu tenet, donec per spiramenta terrae diffusus nutrimenta ignis incendat. 698 *penetrare penitus*, a favourite assonance: I 529 *penitus penetrata retexi*; II 539 *Ut penitus nequeat penetrari*: Lachmann's remark 'hoc enim [*penitus*] ad *penetrare* pertinere non est veri simile' strikes me as very strange; as well as the union of confidence and ill-success with which he treats the whole passage. 700 *arenae*: comp. Justin and Seneca quoted above. Lucr. shews here his habitual accuracy of observation and vividness of description: all the principal features of an eruption are brought into clear relief. Virg. geor. III 241 *nigramque alte subiectat harenam* with a quite different application. 701 *crateres* gives a lively picture of the thing, which neither *fauces* nor *ora* does.

703—711: in the case of many things you must state several causes, to be sure of including the actual cause: for instance if you see a dead body at some distance, you may have to suggest this and that cause, though you are sure only one has occasioned the death.—Such an introduction to a series of cases which admit of more than one explanation is, as has been often remarked above and as may be seen in Epicurus' letter to Pythocles, very characteristical of this philosophy: τὸ δὲ μίαν αἰτίαν τούτων ἀποδιδόναι, πλεοναχῶς τῶν φαινομένων ἐκκαλουμένων, μανικόν κ.τ.λ. says Epic. l.l. 113. 704 *satis est* can hardly in sense apply to *pluris*: *opus est* or the like seems to be required. *una tamen sit* i.e. causa, though you are not able to determine it. 707 *una*, compared with 704 *unā*, appears to be the adjective: ut dicatur unā causa leti illius hominis: the ellipse is harsh anyhow, and it might be simpler to take *unā* as the adverb, that among these various causes the cause of his death may be stated. 710 *genere ex hoc*, the whole class of causes of death.

712—737: the Nile may rise from various causes: from the etesian winds blowing up the stream and stopping the waters: or from sand accumulating at the mouth: or perhaps rather from the rains at its source caused by these winds collecting the clouds there against the high mountains: or from snow melting on the lofty Ethiopian hills. 712 *in aestatem* = aestate: 875 *in lucem tremulo rarescit ab aestu*: the usage seems to be archaic: Plaut. Bacch. 130 *Magis unum in memiemst* (?) *mihi nunc*: see Ritschl there and praef. p. XII, and Fleckeisen: Schneider index script. rei rust. notes from Cato and Varro *in fornacem, in villam, in arborem, in hominem, in parietes stantes*: in older times there

would be little difference in sound and often none in writing between *aestatem lucem villam* etc. and *aestate* etc.: Madvig gram. 230, 2 quotes *habere in potestatem, in amicitiam dicionemque populi Romani*, and in a note suggests this as the origin of the idiom, adding that you never find *in vincla habere*: there is probably truth in this, but it would not apply to *in parietes* quoted above: another explanation will of course apply to the idiom which we find in Petronius sat. 42 *fui enim hodie in funus*; and Prop. IV (III) 9 60 *ferar in partes ipse fuisse tuas*. 714 comp. Manil. III 271 *oras, Quas rigat aestivis gravidus torrentibus amnis Nilus*. *saepe*: you would expect *semper*: Bentl. in consequence thinks the v. spurious; but *saepe* seems sometimes to be used vaguely by Lucr. as if it were almost an expletive: V 430 *saepe* answers to II 1062 *semper*. 715 *Aut quia* cet.: Sen. nat. quaest. IV 2 22 si *Thaleti credis, etesiae descendenti Nilo resistunt et cursus eius acto contra ostia mari sustinent*; and so Diodorus I 38 2, who gives a very detailed account of the causes assigned. 716 *quī*: see n. to II 404. *etesiaī esse*: 743 *Remigī oblitae*: Cic. orator 152 *sed Graeci viderint*: *nobis ne si cupiamus quidem distrahere voces conceditur...at Ennius semel* Scipio invicte, *et quidem nos* [Arat. frag. 21] Hoc motu radiantis etesiae in vada ponti. *hoc idem nostri saepius non tulissent, quod Graeci laudare etiam solent*. Virgil brought the bad habit somewhat more into fashion: see Wagner quaest. XI 3. 718 *Cogentes, cogunt*: see n. to I 875, and comp. Aen. VI 684 *tendentem*, 685 *tetendit*. 725 *Fluctibus*, i.e. of the river. *ostia* appears to be the accus. after *oppilare*: Cic. phil. II 21 *iisque oppilatis impetum tuum compressisset*. 726 *ruit*: Virg. geor. I 105 in the opposite sense *cumulosque ruit male pinguis harenae*: '*ruit*, levels, whereas *ruam acervos* Hor. sat. II 5 22 means to heap up' Conington. 727 *Quo fit uti pacto* = quo pacto fit uti: comp. 204 and n. to II 1004: *fit uti* has become so entirely a single particle in force, that he here says *fit uti fiat* for *fit*, 729 *Fit uti fiant* for *fiunt*: see also n. to I 442 *erit ut possint*. 729—734 he gives the theory of Democritus which is narrated with much clearness and fulness by Diodorus I 39, who throws great light on Lucr.: Democritus intended to refute the common opinion, which Lucr. gives last: the snows melted in summer not on the Ethiopian mountains, but at the north pole, and were carried by the etesian winds all the way up to the sources of the Nile where they were stopped and collected by the high mountains and descended in rain. 730 *et. fl. aq.* occurred V 742. 735—737 he concludes with the common theory: Sen. l.l. 17 *Anaxagoras ait ex Aethiopiae iugis solutas nives ad Nilum usque decurrere. in eadem opinione omnis vetustas fuit. hoc Aeschylus Sophocles Euripides tradunt. sed falsum esse plurimis argumentis patet*: Lucr. having never journeyed to the sources, is less positive than Seneca: comp. the opening of Eurip. Hel. and Valckenaer diatr.

p. 30. 737 *Tabificis* is a common enough word, but hardly occurs elsewhere in this sense.

738—768: Avernian districts are so called because birds cannot live there: there is one at Cumae, another in the acropolis of Athens, another in Syria: the effects are quite natural, so that you need not look on them as the gates of hell. 740 *quod Averna* cet.: *quod* has here much the same force as IV 885 *Id quod providet* and the passages quoted in n. there: the explanation of why they are called by the name of Averna is this: without *Averna* Lachmann's *quo* for *quod* would be very well; with it his reading is scarcely intelligible. 742 *loca venere*: the accus. after *venio*, except in the case of *domum* or the name of a town, is not common: Aen. II 742 *Quam tumulum antiquae Cereris sedemque sacratam Venimus.* 743 *Remigi*: see n. to 716 *etesiae*: this licence also he employs only twice: see n. to IV 741. *Rem. pen.*: Aen. I 301 *Remigio alarum*, VI 19 *Remigium alarum.* 744 *profusae*: Festus p. 229 '*profusus*...alias abiectus iacens, ut Pacuvius in Teucro *Profusus gemitu* cet.' 747 *Is locus* cet.: there is no reason to doubt what he and Virgil say of the Avernian lake when it was surrounded by thick wood: see Servius to Aen. III 442. 'No bones existed in the valley at the time I visited it, excepting of some birds who in crossing the valley had been arrested on the wing by the noxious effluvia as at the lake of Avernus of old' Prof. Daubeny quoted in Murray's handbook for south Italy, ed. 2 p. 304, speaking of what is supposed to be the *Ampsancti valles*: exactly the same is told of some marshes in the Carolinas surrounded by thick woods by a traveller Bosc in the early part of this century. 753 *fugitant non* i.e. *non fugitant* cet., *Sed natura* cet. 754 *Pervigili* is the gen. of *pervigilium*: he doubtless alludes to the famous story told at length by Antigonus of Carystus quoted by Lamb. and Ovid met. II 542—565, how the daughters of Cecrops disobeying the orders of Pallas opened the chest in which the infant Ericthonius was shut up, how the watchful crow espied them and flew away and told it to Pallas, who in anger at the bad news expelled that and all other crows for ever from her acropolis. 'As to the crow, the explanation seems to be that these birds, which are seen in great numbers around the rocks of the acropolis, seldom rise to the summit' Leake Athens I p. 206: at all events no Avernian exhalations are now perceived there. To what Greek poets Lucr. alludes I do not know. 755 *loci ops*: see n. to III 374 *animae elementa*, and IV 741. *ops suapte* i.e. sua ipsius opera: Festus p. 310 '*suopte* suo ipsius, ut *meopte* meo ipsius, *tuopte* tuo ipsius'. 756 *In Syria quoque*: Cic. de div. I 79 *non videmus quam sint varia terrarum genera? ex quibus et mortifera quaedam pars est, ut et Ampsancti in Hirpinis et in Asia Plutonia quae vidimus* cet.: these latter may be the same to which Lucr. alludes. *fer-*

tur esse videri i.e. ut ferunt, videtur esse: *videtur esse* is almost a periphrasis for *est*, is seen, found to be, φαίνεται ὤν: so 977 *videtur*, and elsewhere. 757 *Quadripedes quoque*, as well as birds. 758 *vis ipsa*, without anything else. 759 *mactata*, i.e. haec animalia: see 188 *lata, extructa*, with nubes for antecedent; and n. to I 352. 761 *effiant*: see n. to II 1004. 762 *his reg.* i.e. in all these various places, not at the Avernian lake alone; for instance at the *Plutonia* of Cicero l.l. and *Ampsanctus*, of which Aen. VII 568 *Hic specus horrendum et saevi spiracula Ditis Monstrantur, ruptoque ingens Acheronte vorago Pestiferas aperit fauces.* 763 *post hinc*: see n. to III 529 *post inde*; and comp. Aen. VIII 546 *Post hinc ad navis graditur.* 765 *Naribus* cet.: Aelian Pliny and others relate this or similar stories: Martial XII 29 5 *Cervinus gelidum sorbet sic halitus anguem.* Creech observes that there is a manifest scoff in this illustration. 766 *ferarum*: Hyginus also applies this word to serpents, Martial VI 15 2 to a *formica*, as cited by Forc.

769—780: let me repeat that the earth has atoms of all shapes, some pleasant, some offensive to the taste, and to all the other senses. 769 *saepe ante*: especially II 398—477, and IV 522—721. 770 and 776 *figuras* are atoms: see n. to II 385. 771 *cibo quae sunt*: 1095 *quae sint morbo mortique necessest Multa volare*; Virg. geor. III 511 *Mox erat hoc ipsum exitio.* 774 *ante*: IV 633 *Nunc aliis alius qui sit cibus* cet.: he adopts the language of IV 677, where smell is spoken of, *Verum aliis alius magis est animantibus aptus Dissimilis propter formas.* 778 *iactu*: see notes 1, and comp. II 846 *Nec iaciunt ullum proprium de corpore odorem*; IV 673 *adiectus odoris* is the same thing: *naris adiectus odoris Tangat*: comp. too II 1047 *animi iactus* = iniectus. 780 *tristia*: see n. to I 944 *Tristior.*

781—817: then many things are noxious, often fatal, either to men generally or to men in certain conditions of health; as the shade of certain trees, steam of hot water, fumes of charcoal, sulphureous exhalations, still more those from mines. 783 *Arboribus*: Pliny XVII 89 mentions the walnut and juniper. 787 *Floris odore*: Plut. sympos. III 1 p. 647 F ἱστοροῦσι γὰρ ὅτι καὶ σκιὰ σμίλακος ἀποκτίννυσιν ἀνθρώπους ἐγκαταδαρθόντας ὅταν ὀργᾷ μάλιστα πρὸς τὴν ἄνθησιν: Dicaearchus frag. 60 in Mueller frag. hist. Graec. II p. 261 tells the same of a plant on Pelion, τοὺς δ' ἁψαμένους αὐτῆς ἀναιρεῖ τῇ ὀσμῇ. 789 *Multa* cet. 790 *Quod*: Lucr. seeks emphasis by placing many words before the introductory conjunction; as V 440 *Propter dissimilis formas variasque figuras Quod non omnia* cet. 793 describes of course one labouring under epilepsy or *morbus comitialis*: comp. III 487 foll.: Lachmann's treatment of this v. is quite preposterous: some diseased condition is clearly required, as a healthy person is not acted upon in the way

stated. 795 *man. effl.*: Ovid met. III 39 *Effluxere urnae manibus.* 796 *si od.*: see n. to II 404. 797 *per artus* here is simply *per totum corpus*, or *membra per artus = omnia membra*: see also n. to II 271. 799 *lavabris* is to *lābris*, as *lavatrina* to *latrina*. 800 *solio*, which properly means the seat in the bath on which the bather sat, here, as often, seems to denote the whole basin which held the hot water. 804 *membra domus*: Gronov. obs. III 5 p. 467 quotes Cic. ad Q. frat. III 1 1 *nec habere poterat adiuncta cubicula et eiusmodi membra*, and Pliny epist. II 17 9 *dormitorium membrum*: comp. also V 6 15 *multa in hac membra; atrium etiam ex more veterum.* But as said in notes 1, the reading is very very uncertain: I doubt whether I am right even in adopting *viri* for *vini*; for Lach. is certainly wrong in saying that *At* proves he has not passed to a new question: Lucr. like Cicero often uses *at* to introduce a fresh illustration: see the many instances given in n. to IV 414 *At conlectus*. 805 *mactabilis* is another ἅπαξ λεγόμ.: Lach. compares Attius 421 *leto tabificabili*. 810 *Scaptensula* is the σκαπτὴ ὕλη of Macedonian Thrace: Lach. explains the strange Latin form with much probability: the *s* he supposes to be like the *s* in *silva*, and to represent an older form of the Greek ὕλη, always retained by the inhabitants of the place; the *n* then in Latin merely marks the lengthened vowel, as in *thensaurus Termensium* and the like: comp. too *totiens toties, vicensimus vicesimus*, and the numerous instances in which the Greeks express the Latin *-ens* by -ης, shewing the pronunciation of the former: Lach. then conjectures that the short *u* is due to the Roman soldiers confounding the end of the word with one of their own diminutives. *Qualis* cet. depends on *Nonne vides* of course. 815 [iis] *Quos*: see n. to I 883. *necessis* is gen. of *necesse*: Lach. compares and emends Donatus to Ter. eun. 998, and quotes from the senatus cons. de bacchan. corp. inscr. Lat. I 196 4 *necesus ese* i. e. *necessus*, the old gen. for *necessis*. 817 *prompta caeli*: 1267 *populi loca prompta*.

818—829: in the same way these Avernian spots send up a poisonous steam, so that birds on coming across it are disabled and tumble down; and when they reach the sources of it, are quite killed.—He dwells at such great length on these *Averna* because they illustrate so many of his favourite first principles; the poet as usual having to give place to the philosopher, when the two characters come into collision. 821 *Quo* = et eo, and connects *impediatur* with *Ut* of 820. 823 *derigit* is neuter and = derigit se: see n. to III 502: Forc. quotes from the auctor belli Hispaniensis 29 *hinc dirigens proxima planities aequabatur*; which is very similar to its use in Lucr.: that work too represents the homely style of a contemporary of the poet: there is no more difference in meaning between *derigo* and *dirigo* than between *deminuo* and *diminuo*: IV 609 *viis derectis*: Lucr. does not use the form *dirigo*: from

Ribbeck's edition I find that the mss. of Virgil are ten times in favour of *derigo*, once only of *dirigo*. 826 *aestum*: III 173 *mentis qui gignitur aestus*. 828 *vomenda*: Aen. IX 349 *vomit ille animam*. 829 comp. V 359 *quia nulla loci fit copia circum*.

830—839: sometimes this exhalation causes a partial void, so that the bird cannot support itself on the wing, but falls down and perishes. 836 *nixari*: see n. to III 1000: it is almost or quite a Lucretian word, and is the frequentative of *niti*. 838 *iacentes*, because unable *nixari insistereque alis*: it has much the same force as 744 *molli cervice profusae*.

840—847: the water of wells is colder in summer, because they let out their seeds of heat through the earth which is then rarified by heat: the contrary is the case in winter for the contrary reason. 845 *Frigore—concrescit*: see n. to III 20 *nix acri concreta pruina*.

848—878: the fountain by the temple of Hammon is cold by day, warm by night, not, as is absurdly said, because the sun below the earth warms it, but because the earth about it condenses at night and so squeezes into the water its seeds of heat; and then by day receives these back again.—Curtius Arrian Pliny Mela and others speak of this property of the fountain: Ovid met. XV 309 *medio tua, corniger Hammon, Unda die gelida est, ortuque obituque calescit*. Curtius IV 31 gives the fullest and most precise account. 854 and 863 *corpus aquai*: Emped. 285 ὕδατος τέρεν δέμας ἀργυφέοιο. 858 *satiare*: Cic. Arat. 364 *Cum supera sese satiavit luce*, where mss. have *sociavit*; Germanicus 588 *Siderea vix tum satiatus luce*, the words of Aratus being ὁ δ' ἐπὴν φάεος κορέσηται. 864 *roriferis* cet.: Aen. IV 351 *quotiens umentibus umbris Nox operit terras*. 868 *aqilae*: see n. to 552. 869 *dimovit* appears to have the same force as in Virg. geor. II 513 *Agricola incurvo terram dimovit aratro*. 875 *in lucem* = in luce: see n. to 712 *in aestatem*. 877 *quasi*, in the sense of 'as,' is very common in Lucr. 878 *nodos*, a bold continuation of the metaphor involved in *exolvit*: Hor. epist. I 3 3 *Hebrusque nivali compede vinctus*; Petron. sat. 123 v. 188 *undarum vincula rupit*: comp. too 531 *mora quae fluvios passim refrenat euntis*.

879—905: there is also a cold fountain which ignites tow or pinewood put over it: it contains many seeds of latent fire, which rise up and set on fire this tow or wood, as flame will light a freshly extinguished wick, before actual contact.—Pliny II 228 tells this fact of a fountain at Dodona, to which Lucr. also probably refers. 890 *endo*: see n. to I 82 *Indugredi*. *Aradi*: Aradus or Arvad a populous island on the coast of Phoenicia: this fountain was very famous: see Strabo p. 754 for the use the inhabitants made of it: it is said to be used in the present day. 892 *multis aliis* cet.: Pliny II 227 *dulcis haustus in*

mari plurimis locis, et ad Chelidonias insulas et Aradum et in Gaditano oceano: Leake num. Hellen. insular Greece p. 72 'opposite to the fountain [Arethusa] the distance of about 200 yards a large submarine stream of fresh water rises in the sea, of which the Arethusa itself is apparently a branch': Sir E. Tennent describes similar springs in Ceylon. 894 *intervomit* appears not to be found elsewhere. 901 the language of Pliny l. l. is very similar *in Dodone Iovis fons...si extinctae admoveantur* [faces], *accendit. ubi admoveas*: see n. to II 41 foll. 904 *imbuat ignis*, an expressive metaphor, though less bold than 1176 *sitis arida, corpora mersans*: 896 he uses *scatere* of the seeds of fire, but they may be said to be part of the fountain. 905 *fieri quoque in illo fonte*: he means *fieri in illo quoque fonte*: see n. to V 192.

906—916: to discuss now the magnet, a stone which has the power of attracting iron, and communicating this power to a series of pieces of iron. 908 *Magneta*: Plato Ion p. 533 D ἐν τῇ λίθῳ ἣν Εὐριπίδης μὲν Μαγνῆτιν ὠνόμασεν, οἱ δὲ πολλοὶ Ἡράκλειαν: what follows is so like Lucr. that Lamb. thinks he had Plato before him. 916 *permananter* appears to be a ἅπαξ λεγόμ. Plato l. l. ὥστ' ἐνίοτε ὁρμαθὸς μακρὸς πάνυ σιδήρων καὶ δακτυλίων ἐξ ἀλλήλων ἤρτηται· πᾶσι δὲ τούτοις ἐξ ἐκείνης τῆς λίθου ἡ δύναμις ἀνήρτηται.

917—920: but many points have to be cleared up, before we come to the actual question. 917 *multa* cet.: he dwells on the magnet at what appears so disproportionate a length, because the phenomena seem to him to illustrate so many of his favourite first principles. The elaborate criticism in Galen de nat. facult. I 14 of Epicurus' theory of the magnet, extending over many pages, proves that the latter must have dwelt on the subject at as great length as Lucr. does, and that he explained the phenomena in a similar manner. 919 *lon. amb.*: 1081 *Nec tibi tam longis opus est ambagibus*; Aen. I 341 *longae Ambages*; geor. II 46 *Atque per ambages et longa exorsa*.

921—935: we have said already that particles are constantly streaming from all things, which affect in various ways all the senses. 923—935 are with scarcely any difference a repetition of IV 217—229.

936—958: let me repeat that all things in being are of rare and porous bodies, so that particles can and do pass through them in all directions: this is proved by the whole of nature. 936 *rep. Comm.*: see n. to I 418. 937 *primo*, 329 foll. 942 *speluncis* cet.: I 348 *In saxis ac speluncis permanat aquarum Liquidus umor et uberibus flent omnia guttis*: Wak. compares Lucan IV 301 *Antra nec exiguo stillant sudantia rore*. 944 *Manat* cet.: Enn. ann. 399 *Tum timido manat ex omni corpore sudor*; Aen. III 175 *Tum gelidus toto manabat corpore sudor*. 950 *cum poc.* cet.: I 495 *retinentes pocula rite*; III 912 *tenentque Pocula saepe homines*. 951 *dissaepta*: the subst. hardly

occurs elsewhere, at least in this sense, though the verb is not uncommon. 954 *Galli lorica*: Lach. cites Varro de ling. Lat. v 116 *lorica, quod e loris de corio crudo faciebant. postea subcidit Galli e ferro sub id vocabulum, ex anulis, fere iam tunica.* 955 i.e. *terra coortae in caelum facessunt, caelo coortae in terram.* 956 *iura facessunt*, 'work their will', would suit just as well, if the mss. did not support *iure*; for both these senses of *facessunt* are equally common. 957 *extrinsecus ins.*: this and the two preceding vss. are illustrated and confirmed by 1098 *Atque ea vis omnis morborum pestilitasque Aut extrinsecus ut nubes nebulaeque superne Per caelum veniunt aut* cet.: in these *tempestates* are the *nubes nebulaeque* which bring the *morbida vis*: comp. too 1119—1124, and 1141 foll.

959—978: again particles emitted from bodies act very differently on different things; fire hardens one thing melts another; and so does water; what is pleasant to one creature is hateful to another. 962 *facit are*, like IV 28 *ordia prima*, seems to pass the bounds of lawful licence. 965 *posta*: III 871 *posto*, 857 and I 1059 *posta*; VI 999 *praeposta*; he also has *impostus dispostus* and *oppostus*, as well as *repostus* which the metre requires. 968 *condurat* seems not to be found elsewhere. *ab igni*: *ab* has the same force as in *primus, secundus, quartus ab* and the like: Ovid ex Ponto IV 5 26 *a magnis hunc colit ille deis*; Stat. sil. I 2 147 *Digna deae sedes, nitidis nec sordet ab astris*: Hand Turs. p. 45 gives many examples, as Cic. ad Att. I 5 4 *ut primum a tuo digressu Romam veni*: comp. too Prop. IV (III) 1 23 *Omnia post obitum fingit maiora vetustas*: *Maius ab exequiis nomen in ora venit*; which Ovid imitates trist. IV 10 121 *vivo sublime dedisti Nomen, ab exequiis quod dare fama solet.* 971 comp. Odyss. I 359 Ἀλλὰ τόδ' ἀμβροσίης καὶ νέκταρός ἐστιν ἀπορρώξ. *ambr. linctus*: Aristoph. peace ἀμβροσίαν λείχειν. 973 *amarac.*; see n. to II 847: Gellius praef. 19 *vetus adagium est, nihil cum fidibus graculo, nihil cum amaracino sui*: is it a fact that perfumes poison swine, or did the proverb suggest the notion? 977 *videtur*, φαίνεται ὤν, not εἶναι: so 756.

979—997: once more, the pores of things differ, as well as the particles which things emit; so that by different kinds of pores the different senses receive each its own object: thus too one thing will pass through a metal, another through wood, and so on; and one thing will pass more quickly than another through the same pore or opening. 986 *alio* i.e. in alium sensum: II 683 *Nidor enim penetrat qua fucus non it in artus, Fucus item sorsum, sorsum sapor insinuatur Sensibus.* 991 *lignis, Argento, vitro* = per ligna, cet.: '*lignis*, de resina lignis manante accipiendum' Lach.: to me it seems to be used more generally. 994 *transmittere* is neuter. 996 *ante*, i.e. 981 foll.

998—1041: and now we can easily explain the magnet's attraction:

particles streaming from it cause a void between it and the iron; these particles in a united mass fill the void, and as the particles of iron are very closely packed, the whole ring must follow, when a certain number have thus advanced: this takes place on all sides, as particles stream from the magnet all round, if not by their own motion, yet by impact: as there is a void too on one side of the iron, the air on the other sides helps to push it on as well as the air in motion within the ring. 998 *confirmata, locata, praeposta, parata*, a curious agglomeration of participles, though *praeposta* seems to have almost the force of a subst. 'points laid down beforehand'. 1007 *utque* ends I 755. 1009 *primoribus* = primis: see Forc. 1011 *horror*: II 410 *serrae stridentis acerbum horrorem*: *horror* in these two places = quod facit horrorem. 1012 *ibus*: II 88 *a tergo ibus obstet*: here, as there, the obsolete form has occasioned a corruption: *ex elem.* depends of course on *corpora*, *e ferro* on *coorta*; though Lucr. does not avoid two prepositions in the same clause: IV 694 *Ex alto primum quia vix emittitur ex re*: see n. to I 412. 1016 *compagibus*: 1071 *Quam laxare queant compages taurea vincla*. 1017 *undecumque* appears here to have the sense of *ubicumque*. 1020 *nec ipsa* cet. i.e. nam ipsa quidem sponte sua non possunt. 1022 *quare—iuvatur*: Lucr. is fond of parenthetical clauses like this: comp. III 1068, 790 and V 134, in all which passages, as here, the text is made clear by this simple method without any change whatever. 1023 *adiumento* implies something which adds its assistance to the forces of the thing itself. 1022 *Huc accedit*, 1024 *Quod*, followed by an indic. as always. 1027 *prŏpellat*: IV 195 *a tergo quae provehat atque prŏpellat*, perhaps the only examples of this quantity: 1029 *prōpellat*, as elsewhere. 1032 *Parvas* here appears to be emphatical, 'to the very smallest parts'. 1036 *rebus circumd.*: I 87 *circumdata comptus*, a different constr.: see n. to I 38. *adpositus*: Sen. nat. quaest. II 6 *aer continuus terrae est et sic adpositus ut statim ibi futurus sit unde illa discesserit*. 1040 *quo* cet. a relative clause coupled with *et partem in vacuam*, as so often in Lucr.: comp. 1015 *Quod facit, et sequitur*; II 140, and some of the examples in n. to I 718. 1041 *con. sum.*: 326 *magnum conamen sumit eundi*.

1042—1064: but if brass come between the magnet and the iron, then the iron is repelled, not attracted; because the stream of particles from the brass first fills the pores of the iron; those from the magnet follow, and finding the iron already occupied, beat on it and repel it: other things are not thus repelled like iron for various reasons: gold is too heavy, wood too porous, iron is the due mean. 1044 *Samothracia* seem to be mentioned by Pliny XXXIII 23, a most obscure passage: Isidor. orig. XIX 32 5 says that the Samothracian ring is *aureus quidem, sed capitulo ferreo*: whether this is meant by Lucr. I cannot say.

[redacted]

1048 *Aere interp.* cet.: Lucr. is here completely mistaken from too hasty an induction: neither the attractive nor the repulsive power of a magnet is sensibly affected by the interposition of any body which is not sensibly magnetical, be it metal glass wood paper or whatever else: nay the magnet works equally in a vacuum, the absence or presence of air making no difference: this by the way overthrows the poet's argument 1022—1041, where he brings in his favourite air to assist in explaining the attraction between the loadstone and iron. But if Lucr. has failed in solving the mystery, no one seems to have succeeded. 1050 *Praecepit*: 803 *nisi aquam praecepimus ante.* 1053 *fluctu* is the same as the *aestus* of 1051 1056 and 1059, and the *flumine* of 1064. 1054 *respuit* and 1055 *resorbet* appear to be used in designed contrast. 1056—1064 I have joined with what precedes, as manifestly belonging to the same argument, the repulsive power of the magnet through *aes*: comp. 1063 *Aeris ubi* cet.: this is shewn too by 1057 *impellere*, 1060 *inpellier*, which imply driving from, not drawing to: the purpose of these lines is plainly this: he has shewn above why iron is attracted and not other metals: if now it is repelled in the way stated, it might be thought that other substances which cannot be attracted, would a fortiori be repelled where iron is repelled: this inference he attempts to obviate in these vss. by asserting that gold is too heavy, wood too porous. 1057 *impellere* to push on and so repel. 1058 *stant*: Lach. p. 85 compares II 181 and V 199 *tanta stat praedita culpa*, where *stat* = est; but here *stant* seems to have its proper force of standing still, the opposite of *impelli.* 1059 *cum*: see n. to I 755. 1064 *flumine*, as 1053 *fluctu.*

1065—1089: the fact that only iron is attracted by the loadstone need not excite wonder: many things can be joined together only by some one substance, stones woods various metals: then some liquids will mix, others will not: in all cases of mixture and adhesion the cavities of one substance must mutually come in contact with and fit the solid parts of the other: sometimes too the union is like that of hooks and eyes, as indeed seems to be the case with this stone and iron. 1065 *haec*, such cases of attraction; alluding not to the exceptional case which immediately precedes, but to 998—1041. 1067 *singlariter*: though no other instance is known of this contraction, it must be genuine; and does not seem harsher than 1088 *coplata*, which appears only in Lucr., or than *perviglanda striglibus frigdaria* and the like: Lucr. three times has *aqüa*, a form probably peculiar to him and found too only in this book. 1068 *colescere*: see n. to II 1061 *coluerint.* 1069 *taurino*: Pliny XXVIII 236 *glutinum praestantissimum fit ex auribus taurorum et genitalibus.* 1072 *Vit. lat.*: V 14 *liquoris Vitigeni laticem.* *aqüai*: see n. to 552 *aqüai.* *audent* = non dubitant: 1191

succedere frigus Non dubitabat. 1078 *res una*, hence called *chrysocolla* or gold-solder. 1080 *iam quam multa*: I 104 *quam multa tibi iam fingere possunt Somnia.* 1081 comp. 919: the one seems almost to be written with reference to the other. 1084 *Querum*, 1086 *iunctura haec*: strict syntax would require *horum*, as Lamb. has written: perhaps the turn of expression has been caused by 1085 *Ut cava* cet.: such expressions as *ex eo genere quae prosunt*; *ex eo numero qui consules fuerunt* seem of the same nature; and are common in Cicero and others: see Madv. de fin. p. 469: comp. too ib. p. 213 *sententias eorum, in quibus nulla est* cet. 'mire et dure.. relativom ad *sententias* rettulit, quasi dixisset *sententias eas*: this is the exact converse of our passage; as is the one from pro Balbo 32 quoted in the note. 1085 *haec* cet. i. e. haec cava illius plenis illaque cava huius plenis: for the position of *que* see n. to II 1050. 1087 *plicata*: the particip. seems hardly to occur elsewhere. 1088 *coplata*: see n. to 1067 *singlariter.* 1089, after dwelling at inordinate length on the early parts of this question, 919 *Et nimium longis ambagibus est adeundum*, he hurries on at the end, 1081 *Nec tibi tam longis opus est ambagibus*, and finishes abruptly, as if he felt, what is indeed the truth, that he had after all failed in clearing up the mystery.

1090—1137: now to explain the cause of diseases: many particles, both salutary and noxious, are ever flying about: sometimes the latter are able to corrupt the air; then comes pestilence, either in clouds and vapours, or out of the corrupted earth: it is seen what effects change of climate has on men, and how much climates differ, and how particular diseases infest particular countries: thus a strange atmosphere can come to us in mists and vapours and corrupt our air, and fall on the water we drink or the food we and other creatures eat, or make us inhale infection: thus it comes to the same thing whether the bad atmosphere travels to us or we travel to it. 1094 *supra*, 771 foll. 1095 *quae sint morbo mortique*: 771 *Multa, cibo quae sunt*: see n. there. 1098, 1125 and 1132 *pestilitas* is another Lucretian word, *pestilentia* not suiting the metre. 1099 *extrinsecus* cet.: 957 *Morbida visque simul, cum extrinsecus insinuatur*: see n. there. 1101 *ubi putorem* cet.: II 872 *putorem cum sibi nacta est Intempestivis ex imbribus umida tellus*; 928 *terram Intempestivos quom putor cepit ob imbris*: here he adds *solibus*, so powerful in producing such epidemics. 1104 *Templari*, a technical word for the attack of disease: comp. 1116 *temptantur*, 1137 *temptare.* 1105 *disc. res*: II 1018 *verum positura discrepitant res*: the little word *res* is made to perform a legion of functions. 1106 *Brittanni*: *Brittannis* has manifestly no sense; for *caelum* would then be quite indefinite, and *quod in Aegypto est* must refer to *Brittannis*: the length of the first syll. appears unexampled;

whereas that is the usual quantity of *Brito*. 1107 *claudicat* seems to mean is depressed, lies low, and so leans over like a limping man: comp. Virg. geor. I 240 *Mundus, ut ad Scythiam Riphaeasque arduus arces Consurgit, premitur Libyae devexus in austros.* Upper Egypt and Britain seem almost proverbial in this matter: Cleomedes I p. 42 *παρὰ μὲν Συηνίταις καὶ Αἰθίοψιν ἐλάχιστον φαίνεται τὸ τοῦ πόλου ὕψος, μέγιστον δὲ ἐν Βρεταννοῖς*: *claudicat* may have the same force as IV 436 *clauda*: see n. there. 1108 *et* [id quod est] *Gadibus*. 1109 comp. 722 *Inter nigra virum percocto saecla colore.* 1111 *Quat. a ventis*: Virg. geor. IV 298 *Quattuor a ventis*: the usual force of *a ventis* is on the side exposed to the wind; here *a ventis, partibus* are rather used, as *a fronte, a tergo*: Livy XXVII 48 15 *ita ex omnibus partibus, ab fronte, ab latere, ab tergo trucidantur*: it means therefore in the regions where these winds and quarters of heaven are. 1114 Seren. Samon. 133 *Est elephas morbus tristi quoque nomine dirus.* *elephas* or *elephantiasis*, for both names are used by Galen, is described by him in various places and fully by Celsus III 25 and others: its name is derived from the condition to which it reduces the skin: Kraus medicin. Lex. says that Lucretius' limitation of its range is true of real elephantiasis at the present day. 1116 *Atthide* is used for *Attica* more than once by Mela. *gressus*: is this gout, or the *τὰν τοῖσιν ἀντικνημίοις ἐλκύδρια* of Aristophanes? the expression would seem to point to gout; but Virg. geor. II 94 *Temptatura pedes* and Sen. epist. 83 at end *temptantur pedes* are said of the reeling of drunkenness. 1119 *quod—Commovet* must apparently be taken together, as the verb substantive cannot well be understood in Lucr.; and then *caelum*, as well as *aer*, is nom. to *coepit*. 1121 comp. 1099. 1122 *immutare*, neut.: see n. to III 502. *coactat*: 1161 *coactans*: a Lucretian word. 1126 *ipsas* seems only to distinguish *fruges* from *aquas*; at all events *aquas* and *fruges* seem to be exactly coordinate, and the one to have no preeminence over the other. 1127 *hom. pastus pec. cibatus*: pecudum pastus hominumque cibatus would be more usual. 1128 *aere in ipso*, i. e. intus in aere: see n. to IV 736. 1132 *bal.*: see n. to II 369 *Balantum pecudes.* 1134 *amictum* is a bold, but most expressive metaphor, as the atmosphere wraps us round like a garment: *caeli tegmen*, as we have seen, is much more common.

1138—1251: a plague thus engendered once devastated Athens: a large portion of the people were attacked by it; many of them after every form of bodily and mental suffering died in a few days; others later from the subsequent effects; others escaped, often with the loss of some member: medicine was of no avail; even friends and relatives frightened by the infection often deserted the sick.—The poet wishing to illustrate what he has laid down as the causes of disease, concludes

his poem with this description which is an imitation, in many parts a close translation, of Thucydides II 47—54. One would infer from the words of Lucr. that he had no practical or scientific knowledge of any such like form of disease: he is content to take on trust whatever the historian says and, as we shall see, more than once misapprehends or misinterprets his words. I have looked into many professional accounts of this famous plague: the writers almost without exception praise Thucydides' accuracy and precision, and yet differ most strangely in the conclusions they draw from his words: I can name physicians, English French and German, who after examining the symptoms have decided that it was each of the following maladies, typhus scarlet putrid yellow camp hospital jail fever, scarlatina maligna, the black death, erysipelas, smallpox, the oriental plague, some wholly extinct form of disease: each succeeding writer succeeds at least in throwing doubts on his predecessors' diagnosis. Lucretius' copy must manifestly be even more vague and inconclusive. The truth is that having laid down his general principles of disease and vindicated his philosophy, he seeks now to satisfy his poetical feeling by a powerful and pathetical description which he has plainly left in an unfinished state. He has been imitated in turn by Virgil geor. III 478—566, closely by Ovid met. VII 523—613, by Livy more than once, and by others.

1138 *mortifer aestus* has no reference I think to *Haec*: *Haec ratio* is the law of diseases just mentioned, which at this time caused a *mortifer aestus*; so that Lachmann's objection 'quis enim has res diversissimas coniungat, *haec ratio et mortifer aestus morborum*' has no force. The first words of Virgil's description *Hic quondam morbo* are evidently suggested by Lucr. and it is not unlikely that the *aestu* of 479, used in a different sense, is a reminiscence of our *aestus*; and it is nearly certain that Ovid l.l. 529 *et ignavos inclusit nubibus aestus* comes from Lucr. when we recollect the mode in which he makes pestilence approach, 1099 *ut nubes nebulaeque*, 1121 *Ut nebula ac nubes*. *aestus* has essentially the same force as in 1049, 1051, 1056 and elsewhere, a copious emanation of particles: auctor dirarum 23 *Mutent pestiferos aestus*. 1139 *fun. red.* i.e. funestavit, morte polluit: Virgil l.l. 481 *Corrupitque lacus, infecit pabula tabo*, the rhythm is evidently modelled on Lucr. as Prof. Conington has pointed out: comp. n. to V 202: Livy III 32 2 *vastati agri sunt, urbs assiduis exhausta funeribus*. *Vast. vias.*: Il. E 642 χήρωσε δ' ἀγυιάς. *exh. civ. ur.*: Aen. VIII 571 *tam multis viduasset civibus urbem*: Stat. sil. III 5 73 quoted by Wak. has the very words of Lucr. 1141—1143 Lucr. adapts his description to his general theory: comp. especially 1119 *ubi se caelum quod nobis forte alienum Commovet* cet.: the strange atmosphere of Egypt put itself in motion, travelled gradually over much sea and air and at last arrived at Athens: Thuc. says no

such thing: with his usual caution he tells us that it began, ὡς λέγεται, in Aethiopia, and descended to Egypt and Persia; and suddenly broke out in Athens beginning with the Piraeus; so that it is possible a ship carried it direct from Egypt. 1141 *veniens, ortus, permensus*: see notes 1 and 2 to v 692 693: Lach. plays sad havoc with the participles of Lucr. 1143 *Incubuit*: Hor. od. I 3 30 *nova febrium Terris incubuit cohors*: Thuc. l.l. 48 2 has ἐνέπεσε, Ovid l.l. 524 *Incidit.* 1144 *cat. dab.*: Virgil l.l. 556 *Iamque catervatim dat stragem.* 1145 *Principio* cet.: Thuc. 49 2 πρῶτον μὲν τῆς κεφαλῆς θέρμαι ἰσχυραί κ.τ.λ.: θέρμαι and *fervore* appear to have nothing special in them, as Arnold seems to imply of the former, but to denote heat generally. *gerebant* simply in the sense of having is common in the best writers; Virgil *Virginis os habitumque gerens*; Ovid *centum oculos cervice gerebat*, and *corpora nuda gerebant.* 1146 *suf. luce* expresses the φλόγωσις of Thuc. and means I presume the glare of inflammation. 1149 *an. int.*: Hor. ars 111 *Post effert animi motus interprete lingua.* 1151 *Inde ubi* cet.: it cannot fairly be questioned that in these vss. Lucr. misrepresents Thuc. who says that the disease first attacked the head, then the throat and tongue, then l.l. ἐν οὐ πολλῷ χρόνῳ κατέβαινεν ἐς τὰ στήθη ὁ πόνος, and then always descending, ὁπότε ἐς τὴν καρδίαν στηρίξαι, ἀνέστρεφέ τε αὐτὴν καὶ ἀποκαθάρσεις χολῆς πᾶσαι ὅσαι ὑπὸ ἰατρῶν ὠνομασμέναι εἰσὶν ἐπῄεσαν, i.e. as all the commentators of Thuc. explain it, when it got below the breast and reached the stomach, discharges of bile of every sort took place; it being expressly stated on good authority that by καρδία the ancients, particularly Hippocrates and Thuc., denoted τὸ στόμα τῆς γαστρός. But Lucr. has evidently taken καρδία in its usual sense: such a mistake was not unlikely to occur; but it has caused him sadly to misrepresent the case: he makes the disease not merely descend into the breast, but wholly fill the breast, and stream together into the sad heart, and thus at the very commencement of its course force all the fastnesses of life, though the patients afterwards go through many stages of suffering and live at least eight or nine days: Thuc. says some sentences later διεξῄει γὰρ διὰ παντὸς τοῦ σώματος ἄνωθεν ἀρξάμενον τὸ ἐν τῇ κεφαλῇ πρῶτον ἱδρυθὲν κακόν. This error of Lucr. was pointed out by Victorius three centuries ago in his variae lectiones XXVIII 17 and more fully in a letter to Hieronymus Mercurialis published by Passow in 1832: Lamb. in vain asserts that Lucr. here uses *cor* for *stomachus* after the Greeks: his wide departure from Thuc. and the whole turn of his language prove that *cor* here, as elsewhere, means the seat of life; nor is there the least authority for supposing that *cor* could have any other meaning. 1153 *vit. cl.*: I 415 *vitai claustra resolvat*: see n. to I 71. 1155 *perolent* seems not to occur elsewhere. 1157 *leti lim.*: 1208 *metuentes limina leti*; II 960 *leti iam limine ab ipso.*

1158 1159: Thuc. adds to the words last quoted καὶ αὗται μετὰ ταλαιπωρίας μεγάλης, referring to the great distress caused by the violent vomitings: Lucr. having as we saw quite misrepresented the rest of the sentence, would not understand these last words: he has therefore given quite a different turn to the words of Thuc. in these two vss.: he certainly does not refer to the sentence here quoted by Wak.: his translation of it comes later, as we shall see. 1158 *anxius angor* occurred above III 993. 1160 *Singultus frequens* represents Thucydides' λύγξ κενή, which is commonly explained to be an empty retching, where nothing is brought up. 1167 *ut est* cet.: 'ut est sacer ignis, dum per membra diditur' Lach. *sacer ignis*: see n. to 660. 1172 *partim* = *nonnulli*, as often in the best writers: 1211 *partim* = 1210 *nonnulli*; 1208 *partim metuentes...Vivebant*; III 78 *Intereunt partim*, and elsewhere. 1175 *ipso* defines the part with which they eagerly sought the water. 1176 *Insedabiliter* seems not to be found elsewhere. *sitis, mersans*: a bold but expressive metaphor: thirst so drenches the body, that no after drenching of water can overcome it. 1177 ἐν τῷ ὁμοίῳ καθειστήκει τό τε πλέον καὶ ἔλασσον πότον. 1179 *mussabat*, another fine metaphor, muttering under breath, as not knowing what to prescribe and therefore not daring to speak out: see Prof. Conington to geor. III 550. 1180 *patentia, ardentia, expertia*: see notes 1 and 2 to v 692 693. *ardentia morbis Lumina*, 1186 *Creber spiritus* cet., 1203 *Corruptus sanguis* cet.: Virg. l. l. 504 *Sin in processu coepit crudescere morbus, Tum vero ardentes oculi atque attractus ab alto Spiritus ...it naribus ater Sanguis*: this would serve to defend *ardentia*, if it needs defence: *morbis* seems to mean each with his own disease: but with 1180 1181 comp. Ovid met. VI 246 *simul suprema iacentes Lumina versarunt, animam simul exhalarunt*, and VII 579 *Lassaque versantes supremo lumina motu*; which might seem in favour of Lachmann's subtle and possibly true emendation: the peculiar rolling of the eyes before death is a very marked symptom. This symptom and most of those which follow down to 1195 are not found in Thuc.: they appear, most of them at all events, to be derived from the writings of Hippocrates which Lucr. must have been well acquainted with; and not to have any special reference to this plague: Lucr. indeed seems to forget for the time that he is describing the gradual progress of a disease in which some died and others recovered as is told farther on; and to think only of drawing a moving picture of the signs of coming death.

1183 *Perturbata* cet.: παραφροσύνη in various forms is mentioned by Hippocrates as θανάσιμον. *animi mens*: see n. to III 615. 1184 *Triste sup.* cet.: Hippocr. prorrhet. I 49 mentions the προσώπου τὸ λίην σκυθρωπὸν as a very bad symptom. 1185 so Hippocr. praenot. Coac. 193 βόμβος ἐν ὀξέσι καὶ ἦχος ἐν ὠσὶ θανάσιμον. 1186 Hippocr.

progn. 8 μέγα δὲ ἀναπνεόμενον [πνεῦμα] καὶ διὰ πολλοῦ χρόνου παραφροσύνην δηλοῖ. 1187 *Sudoris...per collum*: Hippocr. progn. 9 mentions sweats on the head and neck only as very bad, and adds οἱ δὲ κεγχροειδέες καὶ μοῦνον περὶ τὸν τράχηλον γινόμενοι πονηροί: the latest editor Ermerins omits these words because Galen says some mss. want them: Lucr. was less critical. 1188 *croci* cet.: Hippocr. l. l. 24 τό τε γὰρ ξανθὸν [πτύελον] ἄκρητον ἐὸν κινδυνῶδες, and elsewhere speaks of saltness of spittle as a dangerous symptom. 1190 *In manibus* cet.: Hippocr. l. l. 7 mentions at length nervous twitchings of the hands, κροκίδας ἀπὸ τῶν ἱματίων ἀποτιλλούσας, and the like, as deadly symptoms; but this 'fumbling with the sheets and playing with flowers' and the like have ever been noted as sure signs of death. *trahere*: see n. to 595 *movere*: Lach. says the *trahere* for *trahi* is admissible, when the act is involuntary and there is no external and *apparent* cause for the contraction. *tremere artus*: this shivering Hippocr. mentions as a bad sign in fever. 1191 'they were as cold as any stone; then I felt to his knees, and so upward, and all was cold as any stone'. 1192 *Non dub.*: IV 188 *Non dubitant transire*; VI 1072 *aquai fontibus audent Misceri*. *item ad supremum* cet.: these signs of approaching death seem almost translated from Hippocr. progn. 2 ῥὶς ὀξεῖα, ὀφθαλμοὶ κοῖλοι, κρόταφοι ξυμπεπτωκότες...καὶ τὸ δέρμα τὸ περὶ τὸ μέτωπον σκληρόν τε καὶ περιτεταμένον καὶ καρφαλέον ἐόν: these words recur little changed in the praen. Coacae: Celsus II 6 translates him thus '*ad ultima vero iam ventum esse testantur nares acutae, collapsa tempora, oculi concavi,...cutis circa frontem dura et intenta*. 1193 *nasi acumen*: *his nose was as sharp as a pen*. 1195 *in ore trucei rictum*, another well-marked symptom: 2 Hen. VI 3 3 24 *See how the pangs of death do make him grin*; par. lost II 845 *and death Grinnd horrible a gastly smile*. 1196 *Nec nimio post*: see n. to V 988 *Nec nimio plus*. *rigidi mor. iac.*: you can say *vir iacet merita morte* i. e *cecidit* or *occisus est mer. morte*: thus Odyss. α 46 Καὶ λίην κεῖνός γε ἐοικότι κεῖται ὀλέθρῳ, which Ovid fasti III 707 translates *Morte iacent merita*; but scarcely *artus iacent rigida morte*: this a Lambinus and Lachmann felt instinctively, a Wakefield never could feel.

1197 *Octavo* cet.: he now returns to Thuc. who says 49 8 ὥστε ἢ διεφθείροντο οἱ πλείους ἐναταῖοι καὶ ἑβδομαῖοι κ.τ.λ. meaning of course that the seventh and the ninth were the two critical days: the sad necessity of the metre I fear has caused Lucr. thus seriously to vary the statement. 1198 *lampade*: see n. to V 402 *lampada*. 1199 *fun. leti*: III 42 *Tartara leti*. 1200 *nigra proluvie alvi* is the διαρροίας ἀκράτου of Thuc.: Galen quoted there by Arnold explains one kind of ἄκρητος ὑποχώρησις to be the τὸν τῆς μελαίνης χολῆς χύμον unmixed with any watery matter. 1202—1204: there is nothing in Thuc. corresponding to these vss., but just before he has, as we saw, been

copying him: thus 1201 expresses Thuc. I. 1. οἱ πολλοὶ ὕστερον δι' αὐτὴν ἀσθενείᾳ ἀπεφθείροντο: 1205 foll. he again takes him up, καὶ εἴ τις ἐκ τῶν μεγίστων περιγένοιτο κ.τ.λ.: what comes between the words just quoted is as follows, διεξῄει γὰρ διὰ παντὸς τοῦ σώματος ἄνωθεν ἀρξάμενον τὸ ἐν τῇ κεφαλῇ πρῶτον ἱδρυθὲν κακόν, the disease took its course through the whole body beginning in the head: is it not then probable that the poet, having a corrupt copy or an imperfect recollection of his author, has misapprehended his meaning, confounding τὸ ἐν τῇ κεφαλῇ κακόν with *capitis dolor*, and making the whole substance of the body run into the head instead of letting the disease pass from the head through the whole body. 1203 *sanguis*: see IV 1050. 1204 *Huc*, 'in alvum aut nares' Lach.: I believe it refers only to *nares*: besides Thuc. says nothing at all here of the *nares*, nor is it easy to see why Lucr. should do so except from misapprehending Thuc. in the way suggested above. 1205 *Profl. exierat*, 1217 *exsiret odorem*: see n. to V 1330 *exibant adactus*. 1209 *ferro priv.*: the words of Thuc. which Lucr. represents in 1206—1211 are these, τῶν γε ἀκρωτηρίων ἀντίληψις αὐτοῦ ἐπεσήμαινε· κατέσκηπτε γὰρ ἐς αἰδοῖα καὶ ἐς ἄκρας χεῖρας καὶ πόδας, καὶ πολλοὶ στερισκόμενοι τούτων διέφευγον, εἰσὶ δ' οἳ καὶ τῶν ὀφθαλμῶν: the disease passed through the body from the head downwards ἐς τὴν κοιλίαν, and if a man was not killed by the terrible ulceration and diarrhoea, it fastened on the extremities, the toes fingers genitals; and some escaped with the loss of these, στερισκόμενοι τούτων, or of the eyes: Lucr. however has understood στερισκόμενοι to mean *ferro privati*, and this has given an awkward turn to his whole sentence: this misapprehension was pointed out centuries ago by Victorius var. lect. XXXV 8, and in the letter above referred to, and seems to have brought upon him no small obloquy, from Lamb. and his correspondent Mercurialis among others: in those days, while everybody had ostentatiously to protest against the religion of Lucr., it seems to have been deemed an impertinence to question his knowledge of Greek or his clinical and surgical skill. 1211 *tamen*, quamvis sine manibus cet. 1212 *Usque adeo mortis* cet.: he takes advantage of his own error to point his favourite moral. *incesserat* is of course from *incedo*, not *incesso*. 1213 1214 are a very literal translation of Thuc. τοὺς δὲ καὶ λήθη ἐλάμβανε παραυτίκα ἀναστάντας τῶν πάντων ὁμοίως, καὶ ἠγνόησαν σφᾶς τε αὐτοὺς καὶ τοὺς ἐπιτηδείους, with the omission however of παραυτίκα ἀναστάντας, which seem of importance in the account: see the commentators of Thuc. *rer. cunct. neque* cet. i. e. et rerum ceterarum, et ut ipsi se non pos. cog.

1215 *supra* goes with *iacerent*, as the prepos. only governs an accus. 1219 foll. comp. Livy XLI 21 7 *cadavera intacta a canibus ac volturibus tabes absumebat, satisque constabat nec illo nec priore anno in tanta strage boum hominumque vulturium usquam visum.* 1219 *solibus*:

[redacted]

soles for *dies* occurs in Virgil and others. 1222 *fida canum vis*: see n. to IV 681 *permissa canum vis*. 1225 see notes to 1247—1251. *vasta* must have its first sense of *vacua*, *deserta*, therefore almost the same as *Incomitata*. 1227 *ali*: see n. to IV 637. 1228 *Volvere* has much the same force as in Virg. geor. III 85 *volvit sub naribus ignem*, quoted by Wak. *licere* is used as an accus. subst.: see n. to I 418: but here it has a second infin. depending on it, *Volvere* and *tueri*: dederat ut liceret volvere. *cae. tem. tu.*: Aen. IV 451 *taedet caeli convexa tueri*. 1229 comp. Virgil geor. III 511 *Mox erat hoc ipsum exitio*. 1230 foll. in all this part he is closely following Thuc.: I do not commence a new paragraph, as the corresponding sentence in Thuc. could not well begin one. 1232 *morti damn.*: a very rare constr.: *damnari in metallum*, *in opus publicum*, *ad bestias* are legal terms, for which Appul. met. X p. 748 has *bestiis esset damnatam*; and Stat. Theb. VI 55 has *Damnatus flammae torus*: in the following passages of Lucan is the subst. in the dative? II 733 *Phariae busto damnantur harenae*; VIII 483 *Ausus Pompeium leto damnare Pothinus*; IX 363 *Et numquam somno damnatus lumina serpens*: or are they all ablatives? *ut esset* must surely be for *ut si*, *quasi*, *tamquam esset*, though it is a very rare use: Lach. quotes Val. Flaccus V 92 *fulsere undae, sol magnus ut orbem Tolleret aut nubem quateret polus*. 1234 *an. am.*: auctor ad Herenn. IV 57 *amisit vitam, at non perdidit...amisit animam, potitus est gloriam*. *respectans*, as V 975 *taciti respectabant*. 1235 *Quippe etenim* cet.: what is the meaning of these conjunctions? the poet has just been saying that the most piteous thing of all was to see how those who caught the disease at once lost heart, gave themselves over, and made no effort for life: he then goes on to say '*for* they at no time ceased to catch the infection' and so on. Why this *for*? how can the fear or danger of infection add to the grief and despair of those who are already stricken? both in these vss. and in what precedes and follows the poet is treading closely on the steps of the historian? now read the words he is here translating: 51 6 δεινότατον δὲ παντὸς ἦν τοῦ κακοῦ ἥ τε ἀθυμία (πρὸς γὰρ τὸ ἀνέλπιστον εὐθὺς τραπόμενοι τῇ γνώμῃ πολλῷ μᾶλλον προΐεντο σφᾶς αὐτοὺς καὶ οὐκ ἀντεῖχον), καὶ ὅτι ἕτερος ἀφ' ἑτέρου θεραπείας ἀναπιμπλάμενοι, ὥσπερ τὰ πρόβατα, ἔθνῃσκον· καὶ τὸν πλεῖστον φθόρον τοῦτο ἐνεποίει: that is to say, the most fearful feature of the plague was this, on the one hand the despondency and utter mental prostration of those who were attacked, on the other hand the great danger of contagion which scared away or else struck down the healthy, ἥ τε ἀθυμία and καὶ ὅτι both of course being subjects of δεινότατον ἦν: now is it not plain that Lucr. has carelessly made καὶ ὅτι depend on what immediately precedes, and has not referred it back to δεινότατον ἦν? and hence the strange paralogism involved in his *Quippe etenim*. 1235 *apisci*: this seems a not unna-

tural, but yet unusual application of the word: Plautus however in his epitaph has *mortem aptus est.* 1238 *cum. fun. fun.*: see n. to III 71 *caedem caede accumulantes.* 1239 *visere ad*: see n. to II 359 *revisit Ad stabulum.* But here too the argument is strange: 'this above all heaped death upon death; for those who refused to attend their own sick, killing neglect soon after would punish for their too great love of life and fear of death by a foul and evil end, left to themselves without help': he then adds naturally enough that they who did stay, caught the infection and died. He is here following closely the order of Thuc. who continues, *εἴτε γὰρ μὴ θέλοιεν δεδιότες ἀλλήλοις πρcσιέναι, ἀπώλλυντο ἔρημοι*: but instead of making *οἱ πάσχοντες* nom. of *ἀπώλλυντο*, he took *οἱ δεδιότες προσιέναι* for its subject; and feeling the weakness of the argument he has tricked it out with these embellishments, and given three lines to express the two words of Thuc. The educated Romans of Lucretius' time had an exquisite knowledge of their own tongue, its syntax, its grammar, its prosody, all its refinements and capabilities; they were also well acquainted with Greek, such as Greek then was; but the Attic of Thucydides and Sophocles, of Plato and Demosthenes had been dead for centuries; and Greek had become the lingua franca of the civilised world. 1240 *mortis timentis*: I find no other instance of this construction. 1241 *Poenibat*: see n. to IV 220 *moerorum.* 1242 *mactans*: 805 *plagas mactabilis.* 1243 *ibant*: see n. to III 526 *ire.*

1247—1251 appear like 1225 to be out of place and unconnected with what precedes and follows: they refer also to the same matter as that verse, to the neglect of the usual rites of burial: Lucr. in all this part of his poem follows the order of Thuc.: well 1246 concludes the topics contained in Thuc. 51; 1252 commences the questions with which Thuc. 52 opens: both then dwell in the same order on the crowding of people from the country into the town and the terrible mortality caused thereby; speak of the dead bodies piled up in the streets and by the fountains; the temples crammed with corpses: Thuc. then goes on to say *νόμοι τε πάντες συνεταράχθησαν, οἷς ἐχρῶντο πρότερον περὶ τὰς ταφάς, ἔθαπτον δὲ ὡς ἕκαστος ἐδύνατο*: so too Lucr. 1278, as if like Thuc. he were entering on a new question, begins *Nec mos ille sepulturas* cet. and in four verses paraphrases the words just cited: Thuc. then continues, *καὶ πολλοὶ ἐς ἀναισχύντους θήκας ἐτράποντο σπάνει τῶν ἐπιτηδείων διὰ τὸ συχνοὺς ἤδη προτεθνάναι σφίσιν*: and similarly Lucr. 1282 continues his paraphrase, *Multaque res subita* cet.: Thuc. then goes on *ἐπὶ πυρὰς γὰρ ἀλλοτρίας, φθάσαντες τοὺς νήσαντας, οἱ μὲν ἐπιθέντες τὸν ἑαυτῶν νεκρὸν ὑφῆπτον*: these simple words Lucr. expresses with some poetical embellishment in the last four vss. of his poem: Thuc. completes the above sentence with this clause, *οἱ δὲ καιομένου ἄλλου ἄνωθεν ἐπιβαλόντες*

ὃν φέροιεν ἀπῄεσαν: the meaning of these words is given with similar embellishment in the vss. 1247—1251 which we are now considering. As the end of the poem is in an unfinished state, and as these vss. as well as 1225 are clearly out of place having no connexion either of sense or grammar with the context, is it not probable that they, like so many others, are incomplete sketches and marginal additions of the poet's, which he intended, but did not live, to embody with the rest of the poem, and which his editors, not knowing what else to do, put into their present place, almost it may be at hap-hazard? Lachmann's treatment of these vss. is highly unsatisfactory: *cernebant* is a violent change; and the *lacrimis lassi luctuque redibant* he refers to these lookers on who had something else to do in attending on their sick; not to those who had struggled to bury their dead, though that must be their meaning: nay it seems to me almost certain that the poet means by these words to express the ἀπῄεσαν of Thuc. l. l. 1247 *Inque aliis alium* has at present nothing to govern it, perhaps never had; for the poet may never have completed the sentence. *populum suorum*: besides Ovid met. VI 198 quoted by Lach., comp. ib. XI 633 *At pater e populo natorum mille suorum Excitat* cet.; heroid. 9 51 *sorores, Quarum de populo nulla relicta tibi*; Pliny XXXV 6 *semperque defuncto aliquo totus aderat familiae eius qui umquam fuerat populus.* 1249 *bonam partem*, 1259 *Nec minimam partem*: see n. to III 64 *Non minimam partem.* 1251 *luctus* for the sickness or death of friends.

1252—1286: the country-people flocked into the town and increased the misery: all public places, even the temples, were crowded with the dead and dying: religion and all the decencies of burial were neglected. 1253 comp. V 933 *Nec robustus erat curvi moderator aratri Quisquam.* 1255 *ded. mor.*: Virg. geor. IV 90 *Dede neci.* 1260 *languens, conveniens*: see notes 1 and 2 to V 692 693. 1262 *astu* as Lach. has sufficiently shewn can be used for the abl.: he quotes Priscian inst. XV 16; and Vitruv. praef. 17 to VII *in asty vero Olympium* cet.; VIII 3 6 *haec maxime consideratur Athenis; ibi enim ex eiusmodi locis et fontibus in asty et ad portum Piraeum ducti sunt salientes*: see also Forc.: yet, as said in notes 1, *aestus* may be Lucretius' word; for the heat must have been a very marked cause of mortality; comp. too the words of Thuc. here imitated, ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρᾳ ἔτους διαιτωμένων ὁ φθόρος ἐγίγνετο οὐδενὶ κόσμῳ: and Livy III 6 3 *ea colluvio mixtorum omnis generis animantium et odore insolito urbanos et agrestem confertum in arta tecta aestu ac vigiliis angebat, ministeriaque in vicem ac contagio ipsa vulgabant morbos*; one would not wish to lose either *aestus or Confertos.* 1264 Thuc. 52 2 καὶ ἐν ταῖς ὁδοῖς ἐκαλινδοῦντο καὶ περὶ τὰς κρήνας ἁπάσας: so that the *silanos aq.* are these κρῆναι, and must have got their name from the water coming out of the mouth or body of a

Silenus: see also Festus and Celsus in Forc. 1266 *Intercl. an.*: Livy XXIII 7 3 *ubi fervore atque aestu anima interclusa foedum in modum expirarent.* 1269 1270 Cic. Tusc. disp. III 26 cites from an old poet *barba paedore horrida atque Intonsa infuscat pectus inluvie scabrum*, which, if defence is needed, seems to defend the second v. which Lach. encloses in [ ]. 1270 *pel. sup. os. un.* appears to be proverbial: Plaut. capt. 135 *Ossa atque pellis sum miser aegritudine*; aulul. III 6 28 *Qui ossa atque pellis totust*: *ita cura macet*; Virg. ecl. III 102 *vix ossibus haerent.* 1275 Gellius XII 10 8 *Titus autem Lucretius in carmine suo pro* aedituis aedituentes *appellat.* 1276 foll.: it would not be easy to say what feeling was uppermost in the mind of Lucr. when following in the footsteps of Thuc. he wrote these vss. 1277 *enim* see n. to I 419. 1282 *res sub.*: Livy III 8 7 *magis in re subita, quam quod ad arcendam vim parum virium esset.* 1283 *rogorum* depends on *extructa*, as 561 *quae sunt extructa domorum*; IV 361 *saxorum structa.* 1284 *Insuper* followed by an accus.: see n. to 192: Lucr. uses also the abl. after it. 1286 *Rixantes* cet. i. e. et rixabantur potius quam desererent corpora.

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INDEX

REFERENCES WITHIN ( ) ARE TO NOTES 1

a, ab=pro i 693; non ab nulla ratione i 935; after a subst. ii 51; ab ictu ii 99; ab se iii 271; iv 468; ab nervis v 1332; ab igni vi 968; a ventis vi 1111

abhinc of future iii 955

ablatives, two or more together i 183; with cum=simple abl. i 275; 755; vi 75; in *i* i 739; 884; 978; 1111; iv 235; vi 66; in *ĕ* i 806; iii 734; in motu and motu esse i 999; of quality ii 909, iii 620, iv 905, vi 268; of the condition iv 392

abluo iv 378

aborisci v 733

absterreo iv 1064

ac before c g qu i 280; vi 440

academics refuted iv 469

accĭdere (ii 1025); accido ad ii 1024; in iv 215; also gov. acc. and dat. iv 882; accus. v 609

accus. after fungor, fruor, potior, etc. iii 956

active verbs used as neut. i 397; 787; ii 126; iii 502; iv 1130; v 931

actus iii 192

acute cernere iv 802

ad 'after' i 185; ad speciem, ad pondus iii 214; ad nos iv 317; ad aequos flexus iv 323; ad tornum iv 361

adducor ut v 1341

adferet iii 354

adfingo iv 386

adfligo oscula iv 1081

adjectives in *-bilis* i 11; and participles neut. plur. with genitive i 315; adjs., etc., referring to substantives of another gender or number i 352; iv 934; vi 188; est omitted with neut. adj. ii 1 and 5; adj. for adverb ii 217; 1080; iii 250

adiectus i 689

adolent iv 1237

adque ii 881

adverbs in *-tim* and *-sim* i 20

adumbratim iv 363

aedituentes vi 1275

Aegium, earthquake at, vi 585

aequor iii 892; mundi vi 108

aestuo v 1097

aestus vi 1138

aetatem iii 986; vi 236

aeternus, poetically used, v 402, 514

aether=aer ii 1115; described v p. 336 337; husband of earth i 250; aetherius i 250; iii 405

aevom masc. ii 561

agere hoc i 41; nunc age i 265; agere [illegible] animam iii 493

agmen, of water, v 271.

alius with exclusive sense of ἄλλος i 116; alid i 263; aliae gen. iii 918; ali iv 637

alliteration, assonance, antithesis, repetition of words, etc. p. 106 foll. i 336; 358; 572; 741; 813; 826; 875; 933; 941; ii 1; 28; 103; 141; 215; 310; 635; 669; 749; 842; 887; 955; 962; 1018; 1054; 1139; iii 11; 387; 399; 449; 746; 778; 869; 898; 983; 993; 1046; 1056; 1091; iv 54; 504; 675; 841; 899; 1121; 1173; v 96; 298; 392; 590; 950; 993; 1334; 1359; vi 327; 415; 485; 698; 718

alma Venus i 2; almus cibus iv 633

alte iv 326

alter=alius iv 688

altior digitum iv 414

altitonans v 745

amaracinum ii 847; vi 973

amfractibus v 683

amictus caeli vi 1134

Ampsanctus vi 747, 762
anacolutha ii 485; iii 434; iv 71; 206: v 383; vi 105; 166; 302
anademata iv 1129
Anaxagoras i 830 foll.; his homoeomeria i 834; i 844; 848; 867; 875—879; 895 896; 897—920; 919; adapted by Lucr. ii 991—1022; v 449
androgynum v 839
anguimanus ii 537
anima 'air' i 715; animam amittere vi 1234; liquisse iii 598
animal (iv 740); v 823
animi fallit i 136; animi mens iii 615; ex animo iii 914; iv 1195; animo male factum, etc. iii 597
anni magni i 1029
anticipo v 659
anulus i 312
anxius angor iii 993
apisci i 448; vi 1235; aptus v 808
aplustra ii 555
appareo, not adpareo ii 141
apparo ii 1110
aqüae, aqüai (vi 552; 868; 1072) vi 552
Aradi fons vi 890
arbusta = arbores i 187
Aristoxenus p. 239 240
arquati iv 333
arteria iv 529
articulo iv 551
artubus i 260
artus, not arctus i 70
astu vi 1262
at in transitions iv 414
atoms, names for in Lucr., Cicero, Greek i 55; Newton on i 547; 572; 594; ii 445; parts of p. 156—160; ii 159; 485; motions of from below i 1000; ii 85; κατὰ στάθμην ii 84; κατὰ παρέγκλισιν p. 198—202; cause of freewill ii 251, 258, 288, p. 201—202; shapes of, finite ii 478—521; atoms of each shape infinite ii 522—568: have no secondary qualities p. 218 foll.
Avancius p. 3 foll.; obligations to Marullus p. 9; (ii 422; iii 98)
audet, quo, v 36; audent of inanimate things vi 1072
Avernian exhalations vi 747
aversa viai i 1041
avessis iv 823
augmen a Lucretian word i 434
avidus auricularum iv 594
aura ii 851
austrum ii 829
awnings over theatres iv 76

b for p vi 92; and v confused (v 545; vi 1199)
Babylonica iv 1029
Bentley p. 12
Bernays p. 15 16
Berosus v 727
bidens v 207
blanditur governs a pres. subj. ii 173
bonum summum vi 26
brattea, not bractea (iv 727); iv 727
Brittanni vi 1106
buceriae greges ii 663
burial, modes of, p. 266
bustum iii 906

cacumen p. 157 158
cadere ad iii 836; cadat iv 1182
caelum mare terra proverbial i 2—9; caelos ii 1097
Caesar? alluded to ii 40
caesius iv 1161
caesura, short syll. lengthened by ii 27; vss. apparently without ii 1059
campi natantes, natare, v 488
Candidus, Petrus, p. 5
capite se in vestigia statuere iv 472
capulum, ire ad, ii 1174
carceres ii 264
case understood from a different one iii 68, 1018
cassus lumine iv 368
casu seu vi 31
cavernae caeli iv 171
caulas ii 951
centaurium, centaurea ii 401
certus i 521
cervices ii 802
cetera ii 859
Cicero: did he or his brother edit the poem of Lucr.? p. 94 95; his opinion of Lucr. p. 108; i 186; seems to allude to him ii 1092; iii 983; iv 1070;

vi 396; imitated by him v 298; 619; his Aratea studied and often imitated by Lucr. v 619
cinefactus iii 906
circumdatus with acc. and dat. i 39
circumfusus with accus. i 39
citus partic. i 1001; sonitu iv 546
Cius=Ceus (iv 1130); iv 1130; Cia error for Coa, ib.
clam id fore v 1157
clarigito not Latin (v 947)
clarus v 947
claudico vi 1107
claudus iv 436
claustra i 415; ii 450
clueo i 119; 449; iv 52
coëpi iv 619; coepi vi 432
cognate accus. iii 569; iv 1274; vi 404
coguitus v 7
coluerint, etc. ii 1061
commeditor vi 112
communis sensus i 422
complexus, pass. v 922
componere leges iv 966
compounds in Lucr. i 275
comptus i 950
concelebro i 4; v 1381
conclamatio iii 467
concreto corpore v 466
condo v 2; saecla iii 1090
condicio ii 301
conexus, conecto, conixus, conivere, conubium i 633
confio ii 1069; iv 738
confugio with infin. iii 766
confultus ii 98
coni umbrae v 764
coniecta, without huc, (ii 1061)
coniuncta i 449
conlectus iv 414
conscius iii 1018; sibi in re vi 393
consentire ii 717
consequitur leto iii 929
conseque v 679
conserit lumine ii 211
consors vita iii 332
consto, consisto, with simple abl. or prepos. in Lucr. i 221; 484; constitit in i 420
consuesco, act. vi 397; consuetus iv 998
contendere causam iv 471
contingo i 934
contorqueo iv 904
contrahor v 1219
conūbium or conūbjum iii 776
conveniebat ii 780
convertere neut. v 1422
convestire ii 148
convinci v 1178
coplata vi 1088
coronae iv 1132; 1178
corpus, corpora for atoms i 55; corpora caeca 277; corpus, an atom, i 600, ii 484; periphrastic v 235; aquai vi 854
correpo v 1219
corripio iv 83; v 1223; corripuisse mihi v 247
corruo v 368
corruptions from assimilation to adjacent cases numbers genders words etc. (iv 81; 563)
Creech p. 13
crerint v 782
Crinitus, Petrus, p. 7 8
cudere i 1044
cuius, monosyll. i 149
cum with abl.=simple abl. i 275; 287; 755; iv 1126
cum causal with indic. (vi 130); i 566; temporal with pres. potential ii 41; cum cumque ii 114
cum praesertim iv 786
cumque after cum (vi 550)
cun-, quon-, qun-, in terminations of verbs iii 713
Cupido iv 1058
cupiret i 71
Curetes ii 629
curo diffugiant vi 231
cursus viam v 714

daedalus i 7; iv 551
damnare with gen. and abl. iv 1183; damnatus morti vi 1232
dative=gen. i 58; dativus ethicus i 797
de i 384; de plano i 411; after a subst. ii 51; =ex vi 290; de supero vi 512

decello ii 219
decet with dat. i 885
decurro ii 962; iv 1196; decurso lumine iii 1042
decursus v 263
dede manus ii 1043; deditus in iii 647
dedico i 367
degere bellum iv 968
delibo vi 70
Democritus i 685; vi 535—556; Epicurus and Lucr. differ from ii 258; p. 202; p. 209; iii 373; v 1028—1090; on rising of Nile vi 729—734
denique i 17; 278; iii 759; v 858
densebant (v 491)
deorsum dissyl. and trisyl. ii 205
deplexae v 1321
derigo, derectus vi 823
desidiae v 48
despicere and dispicere (iv 418); desp. ii 9
desse i 43
desurgere v 703
devinctus, quo, iv 962
differre fuerit seems not Latin (iii 868; iv 1259); differre anne iii 868
difficile est iii 361
dignarier, pass. v 51
dignus prp v 1
discessum dare (iv 41); iv 41
discludere v 444; vi 240
dispargo, exspargo, etc. ii 1135
dispessus (ii 1126; iii 988); ii 1126
dissaepta vi 951
dissentit iv 766
dissicietur ii 951; iii 639
dissolvere causam iv 500; dissolŭo i 216
dissuluit iv 605
dīu iv 211
diversus gov. dat. v 647
dius i 22; v 1387
do=facio (iv 41); ii 119; 187; 1149; iii 355; iv 41; 847; v 104; 1340; do leto, etc. v 1007
docui quoniam iv 752; doctus with infin. iv 579
dogs, words imitating cries of, v 1063, 1070, 1071
dolia curta iv 1026
doloris, etc. pl. (ii 467); ii 467
donec, donique, constr. in Lucr. i 222; iv 997; donique ii 1116
dubito, non, of inanimate things vi 1192
ducere sub signis v 999; of tunes v 1406
ductu aequali iv 426
duellicus, etc., ii 662
dum 'until' with indic. i 949
dumtaxat ii 123
durateus equus i 476
dux i 638

ĕ and ĭ in rarefacio, vacefacio, patefacio etc. i 648; ĕ for i in compounds of iacio ii 951
e, ex after a subst. ii 51; e laevo iv 301
ea propter iv 313
earth, as mother i 250; ii 598 foll.; how upheld in its place v 538
ebrius iii 1051
effio ii 1004; effit ut—ita=ita effit ut, ib.
effigia iv 42
efflare ii 832; v 652
egigni ii 703
-ei, old termin., corrupted to -et (vi 1195); =-i iii 97
eiĕcit, etc. ii 951; eicio and elicio confused (iii 58); eicit dissyl. iii 877
elements, the four, maintained by what philosophers i 715; 734
elephantiasis vi 1114
elision of a long before a short syll. i 1091; neglected in monos. ii 404; neglected iii 374; of m in quidem, etc. iii 904; of an iambus iv 741; at first syll. of a v. iv 1205; neglected, but shortening the vowel, vi 716, 743
Empedocles i 733; 742; 748; 754; 767; 782—802; iii 43; v 783; 1194; translated v 102; imitated and refuted v 839, 840, 878—924, 908
endo i 82
enim v 13; late in sentence vi 1277
Ennius invented the Latin hexameter p. 102 foll.; his theory of the soul i 114—116; introduced Greek metres i 117
epanalepsis v 1189; 1327
epicurean system suited for poetry p. 96 foll.; where according to it certainty

can or cannot be attained p. 340 341; vi 703—711 Lucr. softens its harsher features v 1020, 1157
epilepsy vi 793
epithets transferred from the whole to its part i 474; with poetical intensity of meaning i 1018; iv 63; vi 1032; epith. orn. ii 844; two or more in same sentence i 258; ii 8; v 13
equos (nom.), ecus i 477
escit i 619
est for licet not Lucretian (v 533); when it may be omitted with the gerund i 111; iii 796; 866; est ut, erit ut etc. i 442; est with partic. for finite verb ii 1089; est quare possit v 715; est ratio ut vi 132; est cum vi 295; cibo quae sunt vi 771
et for etiam (i 830; iii 234; 290; v 610; vi 749; 818); vi 7; et for ac in comparisons i 280; followed by que ii 1070
-ĕt (v 1049)
etesiae v 742
etiam ii 494; etiam quoque, quoque etiam, item etc. iii 208
eventa i 449
Euhius, euhoe v 743
ex ineunte aevo ii 748
ex infinito i 1001; 1025
examina v 1364
excellere vi 13
exiit etc. in Virgil iii 1042; exire active v 1330
exim iii 160
exossatus iv 1271
explere iii 1004
extructa rogorum vi 1283

Faber, Tan. p. 12
facesso vi 956
facio quid i 440; facio 'assume' i 655; f. ruinas i 740; vi 573; finem iii 943; facere = hoc f. iv 1112; facit are vi 962
faecula ii 430
fama deum i 68
famul iii 1035
fatigo caelum ii 1172
fauces, craters, vi 639, 702
fauni iv 581
ferae pecudes i 14; ferae 'serpents' vi 766
fere, ferme i 14
ferruginus iv 76
fervo and ferveo, form and sense, ii 41
fetialis, metaph. from his mode of declaring war i 983
fetus = arborei fetus ii 1159
fictus = fixus iii 4
fidĕi i 688; v 102; fidem do = f. facio v 104
figurae, atoms, ii 385; 679; = simulacra iv 34
filum ii 341
final causes denied p. 304 305
finis always femin. in Lucr. i 107; fine = tenus iv 627
firmo iii 319
fit uti inde, etc. = inde, etc. fit uti ii 1004; fit uti fiat, etc. i 442; vi 415; 727; fit copia v 359
flammescere caelum vi 669
flatus aquilonis et Austri v 689
flectere of tunes v 1406
flos flammai i 900; nardi ii 848; Bacchi iii 221
florentia lumina iv 450; florere puppibus v 1442
fluctus belli v 1290; irarum vi 34; of magnet vi 1053
fluere iv 860
fluto iii 189
flŭvidus and flūvidus ii 452
fortuna gubernans v 77
fragor i 747
fragosus ii 860
fretus, fretu i 720; metaph. vi 364, 374
frudi vi 187
frugis, vocis, etc. acc. pl. (i 744); fruges i 252
fuat ii 383
fucus = color ii 683
fuerit iii 915
fugio = confugio ii 926
fulcire cibus ii 1140
fulgo and fulgeo vi 160; fulgĕre vi 213
fulgor = fulgur vi 170
fulmen, fulgur, tonitru vi 160—172
fundo of giving birth v 823

[redacted]

fungor i 440
funis fem. ii 1154

Gassendi p. 12
geli, gelum v 205
genetrix, not genitrix, i 1
genibus summissa i 92
genitabilis i 11
genitive in *-ai* i 29, ii 52; plur. contracted i 162, v 727; with force of an epithet v 369, 764, 1193, vi 954
gero res i 328; caput vi 1145
gerundial dative i 24; gerund with accus. i 111; abl. of, referring not to the subject of sentence i 312; iv 1068; v 1369; gen. sing. with gen. plur. of subst. v 1225; in remorando vi 333
Gifanius, Obertus p. 8, 11
glans liquescit vi 179
glomeramen ii 454
gods of Epicurus ii 646—651; p. 326; p. 364—368; abodes of iii 18; v 146—194
Goethe's opinion of Lucr. p. 98
Graii not Lucretian (vi 424)
Graiiugenarum (i 465)
gratis iii 935
gravesco iv 1069

habebis i 758; habent amplexi i 1069; habetur iii 831
habrotoni iv 125
haec fem. plur. iii 601; vi 456
halare exhalare etc. and alare etc. (iii 432)
ἅπαξ λεγόμενα and words peculiar to Lucr. among good writers i 434; 437; 653; 795; 1027; ii 98; 165; 169; 292; 335; 360; 401; 412; 498; 571; 625; 703; 741; 850; 866; 975; 1096; 1106; 1122; 1137; iii 21; 106; 219; 240; 381; 393; 464; 525; 660; 675; 689; 721; 779; 839; 851; 890; 917; 928; 1015; 1063; iv 83; 180; 204; 220; 225; 271; 363; 465; 552; 600; 635; 636; 654; 660; 716; 742; 816; 817; 824; 927; 1165; 1169; v 28; 145; 158; 244; 246; 269; 303; 316; 340; 387; 394; 467; 598; 761; 864; 1015; 1035; 1040; 1142; 1321; vi 112; 233; 353; 390; 447; 523; 547; 576; 614; 651; 669; 671; 805; 916; 968; 1098; 1122; 1155; 1176
Havercamp p. 13
haut facile est iii 361
heaven reflected from water (iv 213); i 1060; iv 213; 419
Heinsius, Nic. ms. notes by, p. 19
Helicon, torrents of, iv 547
hellebore food of quails iv 641
hendyadis iv 852: v 726
Heraclitus p. 160 foll.; his fire i 645; 696; on the senses i 696; 782—802; on soul iii 359
hiatus caeli iv 417
hilum, affirm. iii 514
Hippocrates iv 1210; 1227; vi 1180; 1183; 1184; 1185; 1186; 1187; 1188; 1190; 1192
hisco iv 66
honey bitter to some iv 671
Honorius of Autun quotes Lucr. p. 1
honustus iii 113
Horace imitates Lucr. iii 938; v 82; 1029
horror iii 28; vi 1011
humani iii 80; 836
hypermetrical v. v 849
ὕστερα πρότερα v 535

i and l confused (i 349; ii 961; iii 58; 198; iv 1210; vi 1200)
Iaccho, ab, iv 1168
iacens vi 838; iacere morte vi 1196
iacere, iactus, adiectus, of smell (vi 778); vi 778; iactus animi ii 1047
iam i 600; 613; ii 314; 426; iamque adeo ii 1150; iam iam iii 894
ibus ii 88; vi 1012
ico iii 160
ictus vi 220
id quoque i 655
Idaea mater ii 611
idem, eaedem, eodem, eādem, isdem dissyll. i 306; iv 310; idem gov. dat iii 1038
igitur i 419; ii 678
ignisco vi 301
ii for i (i 465)

ille emphatic i 82; ii 362; v 416; illaec iv 1059
illim iii 881
images, names for ii 112; iv 30; surfaces of iv 101; 135
imber 'water' i 715
imbibo iii 997
imbuo of fire vi 904; inbuta with accus. (ii 734)
impetus iv 416; v 200; inpetis vi 327
improbus iii 1026
in, with abl. of time i 93; in understood from another clause iii 623; in aestatem vi 712; in lucem vi 712, 875; in sensu, odore iii 537; in somnis iii 431
in eo est iv 1107
inanis, as substant. i 363, 517; inane used loosely ii 116
incautum scelus vi 390
incendo vi 347
incido with accus. i 326; iv 568
incipiam i 55; vi 432
increpo aliquid alicui iii 932
incumbo v 346; vi 1143
incutere of love i 19
inde loci v 443
indicia vi 381
indignarier se iii 870
indu i 82
infestum facere v 983
infinitive = nomin. of subst. i 331, 582, v 979, vi 380, 415; = accus. i 418, ii 1029, iv 245, vi 69, 1228; of indignation ii 16; understood from another clause iv 779, 802, v 36, 263
infinity i 622; p. 211; Newton on i 622
infra iii 274
infula i 87
ingratis iii 935; animi ingratis vi 15
iniectus animi ii 740
innumero numero ii 1054
inpendeo with accus. i 326; inpensus ii 363; vi 491
inrigo iv 907; v 282
insilia v 1353
insinuo, constr. of i 116
insistere with accus. i 406
instituo v 14
insuescat te iv 1282
insuper with abl. and acc. vi 191; 1284
integer i 927
intendere litem iii 950
inter pretantur iv 832: inter se, one word in metre (vi 370); = mutuo se i 787; vi 456
inter- in composition iv 716
interutraque (ii 518)
interemo i 216
intellēgit vi 17
interpolator of the poem (i 44—49; iii 806—818; v 1341—1346) i 50; 1085
inversa verba i 642
intus iii 171; vi 23; with abl. iv 1091
ipse, doubtful use of, (v 1010); in ipso = intus in iii 483, 575, iv 736
ire et abire ii 962; ire iii 526
isdem (ii 693)
ἰσονομία ii 578; vi 542
iter viai, viarum ii 626; itere v 653; itiner vi 339
iura v 1144
Ixion, ? mentioned in lost vss. iii 1011

l and i confused (i 349; ii 961; iii 58; 198; iv 1210; vi 1200); l for ll after i i 313
labeosus iv 1169
labi, of the stars i 2
Lachmann p. 15
lacus iv 1026; v 75
laetitiae, etc. plur. iii 142
laetus i 14
Lambinus p. 10—12
lammina iii 1017
lampas of sun v 402
latebrae lunae v 751
latrare ii 17
lavabra vi 799
laurus Phoebi i 738
leges iv 966; iuraque v 1144
Lessing denies Lucr. is a poet p. 96
levia carmina v 1380
libella iv 515
licet quamvis vi 601
limen leti, etc. ii 960
linctus vi 971
liquidus, līquidus, liquor ii 452; iv 1259; liquidus ignis vi 205
longus = longinquus iv 393
loquor with infin. iv 581

lorica Galli vi 954
lucae boves v 1302
Lucretius, manuscripts of p. 1—3; editions p. 3—23; date of his birth and death p. 93; his first editor p. 94; design of his poem p. 95 foll.; summary of his poem p. 97 foll.; Greek and Latin authors whom he admired p. 99; his purity of style p. 100; had he a right to complain of the poverty of Latin? p. 100—102; difference between his hexameter and that of Virgil and others p. 102—106; his fondness for alliteration assonance antithesis p. 106; date when he was writing i 41—43; ii 40; his motive in invoking Venus p. 119 foll; imitates Euripides p. 128; v 805; translates him p. 226; illustrates abstruse things from what is visible i 197; concludes a long reasoning by a short argument appealing to sense i 701, 759, 915, 984 etc.; seems to imitate Aristophanes ii 8; translates Homer ii 24, 324, iii 21, 1000, 1025, v 905 906, vi 971; imitates Hesiod v 1289; translates Antipater iv 181; his satirical irony p. 310; his allegorising v 405; misrepresents Thucydides vi 1141—1143; 1151; 1158 1159; 1197; 1202—1204; 1209; 1235; 1239; leaves him for Hippocrates vi 1180—1195
lucuna iii 1031; vi 538
ludi iv 1131
lumina solis i 5; luminis oris i 22; lumina linquere v 989
luridus, luror iv 332
lychini (λύχνοι) (v 295); v 295

machina v 96
mactus v 1339
madeo iv 792
maeror = dolor iii 908
magis = potius i 612
mali moles iii 1056
mammosa iv 1168
mancipio iii 971
mandare malis ii 637
maneo = sum ii 843, vi 1274
manni iii 1063
mansuesco act. v 1368
manu ducere ii 869; conferre iv 843
manuscripts of Lucr. p. 1—3; 17 foll.; ms. of Modius p. 19; lost archetype of all existing mss. p. 20; mutilations in it (i 1094—1101; vi 840); pages in it inverted (iv 299—347)
mare abl. i 161
Marullus p. 5—10; and Avancius p. 9; (ii 422); and Gifanius (i 806; ii 9; 125; 593 and 607; iii 994)
meatus v 76; 193
Meliboea ii 500
melichrus iv 1160
membra domus vi 804
meminere fugai iv 713
Memmiadae i 26
Memmius p. 118, 119, 121; Lucr. seems to distrust him i 103
mens animi iii 615; mente animoque i 74
merso v 1008; vi 1176
metae solis v 689
metaphor, military, vi 32; 571
metuo: et metuunt! = et dubitant! vi 565; metutus v 1140
minimum p. 157 158; i 602; ii 244
minuant mirarier ii 1029
mirrors reflexion from concave, iv 317
misero misere iii 898; miseri iv 1076
mitrae iv 1129
mobilis, mobilitas, etc. ii 65
modo of pres. or fut. time ii 1135; modō, ib.
moenera i 29
moenia mundi i 73
moerorum i 29; iv 220
molimen iv 902
moliri v 934
momen i 435; ii 220
monimenta virum vi 242
mora vi 453
mortalia saecla v 805
morte, in, iii 880
movere, neut. vi 595
mulceo iv 138
multesimus vi 651
multimodis i 683
mundus, 3 divisions of, i 2 foll., iii 842, v 93

munire ab iii 820
muralis corona ii 606
musso vi 1179
muto pedibus iv 459
mutua ii 76
mutus v 1088

nam, enim, namque in consecutive sentences i 217
nardi flos ii 848
natura rerum i 25; natura redundant i 710; 961; ii 646; natura gubernans v 77
Naugerius p. 10
ne followed by nec or neque v 890
nec prorsum i 748
necessum ii 289; necessust, etc. ii 710; necessis genit. vi 815
nemo and other negatives, affirmative understood out of, ii 1038
neque, nec uter iv 1217; v 839
nequiquam quoniam iv 1133
neut. plur. referring to 2 subst. of diff. gender (iii 66); iii 136; 558; iv 1199
ni nive = ne neve ii 734
nidor iv 684
Niccoli, Niccolò, p. 2
nil only monosyl. in Lucr. i 150
nimio plus v 988
nimirum i 277
ningunt of flowers ii 627
nitidae fruges i 252
nixor iii 1000; vi 836
nodus anni v 687; nodus of ice vi 878
noenu iii 199
nominative plur. in *is* i 808; vi 221; nominative in dependent clause instead of another case iii 456
non-medium, non-sensu, etc. i 1075
non modo, .. quoque iv 507
non tam, sed magis iii 613
notities = πρόληψις v 182, 1047
nullum foret i 427
numen = nutus (ii 632) ii 632: comp. iii 144
numero esse v 51; numerum, in and extra, ii 631, v 1401
nunc, at nunc, etc. i 169
nuntia, plur. iv 704

obit, perf. before a consonant (iii 1042); iii 1042
obrutesco iii 545
obstruere v 754
in offensu est iii 941
officior, ii 156
omne, omne quod est, p. 178; i 958
omne genus i 1026; omnibus rebus ii 175
omnimodis i 683
omniparens v 259
opella i 1114
opinatus animi iv 465
oportunus iii 545
opus est i 1051
ora iii 913
orae luminis i 22
ordia prima iv 28
ŏriundi trisyl. ii 991
orthography p. 23—28; (i 465; 744; ii 1025; iii 432; iv 727; 1130); i 477; ii 141; 301; 402; 430; 467; 829; 881; 1135; iii 113; 160; 545; 599; 713; 1031; 1044; iv 220; 727; 1126; 1169; 1186; 1250; v. 683; 743; vi 92; 187

Pacuvius paraphrased v 318—323
palam est ii 568; dedit iii 355
παλιγγενεσία iii 847
pallores iv 336
panaces iv 124
pandere palmas v 1200
pangere i 25
paragraphs imperfectly connected with what precedes and follows p. 123; ii 165—183; iv 129—142; 706—721; 777—817; 823—857; 858—877; v 110—234; 509—533; 1091—1160; vi 1225; 1247—1251; not finished iv 37; 218; v 82—90; 187—191; 419—431; vi 58—66
parentheses in Lucr. vi 1022
parte, ex parte (i 843); partibus egregie multis, etc. i 735; plus parte ii 200; non minimam partem, etc. iii 64; in parte v 734; divisis caeli partibus vi 86; quadam de parte vi 604; partim, parti i 1111; vi 88; partim, adv. = aliqui v 1143; vi 1172

participle, more than one, in same sentence (v 692 693), v 692, vi 998, 1141, 1180; partic. pass. from neut. verbs ii 156, 363, iii 772, vi 491; partic. comparative of, iii 397; iv 961
participo with abl. iii 688
parvissimus i 615
pasco visus, oculos i 36; ii 419; pasco of stars i 1090
pausa i 747
pax divom v 1229; paces v 1230
pectus i 731
pede, of water, v 272
pelage v 35
pellacia ii 559
penes ii 1010
penetralis i 1105
penetratus iv 1246; penetrabat eos v 1262; penitus penetrare vi 698
per se i 419
percipio iv 729
perculsus i 13
percurro, absol. vi 324
peremo i 216
perfect in *-ît* for *-avit* i 70; iii 1042: contracted forms of perf. inf. and plup. subj. i 233; *it*, *obit*, etc. bef. consonant iii 1042
permitti iv 681
perpetuum, in, iv 427; perpetuo aevo v 161
permaneo of body and soul i 122
permicialis (i 451)
perplexus, etc. of atoms ii 102; of pores (iv 621)
persentis iv 25
pervadere ad i 555
pervigili causa vi 754
petesso iii 648
pio nequaquam bello v 381
pius and prius confused (vi 1279)
Pius p. 4
pix iii 1017
placatus i 9
plerumque omnes iv 1049
plicari iv 828; plicatus vi 1087
Plutonia vi 756
poena, not paena, (iii 1014)
poeniceus i 29; ii 829
Poggio p. 2
Politian p. 7; and Junt. ed. p. 7; (i 15; ii 1166)
pondus and pondera = equilibrium ii 218; (vi 574); vi 574
Pontos v 507
populus suorum vi 1247
pos = post (iv 1252); iv 1186
poscaenia iv 1186
posset possent etc. for possit possint (i 207; 356; 593 and 597)
possido i 386
post inde, deinde, hinc iii 529; vi 763
postus, dispostus, etc. vi 965
pote iii 1079; v 836
potential = indic. i 327; ii 850; 922; iii 856; 960; 1024; iv 572; 1231; joined with indic. after si ii 36; iii 948
potesse etc. i 665
potestas rationis, nostra, etc. ii 53; in periphr. v 1242
potestur i 1045
potior with accus. ii 659; iii 956; of an evil iv 766; potiri rerum, rerum potentes ii 13
praepandere i 144
praescribta vi 92
prepositions, two in same clause, i 412; separated from verb i 452; follow their cases i 841; gov. by subst. ii 51; after case and before gen. iii 140
pres. subj. in protasis, answered by an imperf. v 276
prima virorum i 86; prima ii 313
primordia i 55
primus quisque, primum quicquid i 389
principium in sing. (i 834); principio ii 937
probeo = prohibeo i 977
procella and tempestas differ vi 259; and turbo vi 447
proclive ii 455
procudo ii 1115
procul est ut iv 856
procumbere v 1200
proditus ii 933; vi 563
proelia pugnas without copula ii 118
profudit iv 757; profusus vi 744
profundus i 957; profundi, subst. i 1002
prolapsus vi 574
pronoun poss. and adjective together i

413, iv 394; relative omitted or changed to demonstr. i 718, v 898; vi 52, 1040; has a genit. anteced. understood i 883; agrees with subst. in same clause iii 94; quorum with iunctura haec for antec. vi 1084
prŏpello iv 194; vi 1027
propago catulorum iv 998
proporro iii 275
propritim ii 975
proprium iii 357; proprio amore iv 1141
proquam ii 1137
prospectus vi 450
prosum, introsum, rusum iii 45
protelo ii 531
protollo v 309
proverbs ii 1; 886; iii 842; 1046; 1048; 1085; iv 126; 1143; vi 1270
pulli v 1364
pugno id v 729
putare indigna vi 69
putesco and putresco confused (iii 871)
putor ii 872
pythagoreans alluded to iii 677

qua re ii 960
quaecumque with gen. iv 311
quaedam omitted iv 518
quaesit v 1229
quam ii 1038; quam quoque magis iii 700; vi 460; quam ante iii 973; iv 884
quando = quandoquidem i 188
quantity, variation of, in the same words i 360; ii 452; iv 1259; v 856; ĕ in penult. of perf. ind. i 406
quantula dimin. of quot iii 378
quantus quantus v 584
quare = ut ob eam rem v 873
quasi si iv 1014; quasi = ut vi 877
quatenus ii 927
que annexed to -ĕ i 666; for a disjunctive part. ii 825; v 985; in 3rd place ii 1050; following et ii 1070; followed by atque v 31
queatur i 1045
quem = quemcumque i 966
quicquam quicque quicquid with c i 22 23
quicquid = quicque ii 957
quidquid, quicquid (v 1252); i 22; qua quidquid not Latin i 289
quidum iii 738
quietus v 168
quin i 588; quin ipso = quinetiam ii 799
quisquam, as adject. i 1077; of inanimate things iv 689
quisque (i 578); primus quisque i 389; quodque cacumen = cuiusque i 599; quaeque i 578; quique suo genere ii 372; nec quaeque = nec altera iii 333; quaeque plur. with a gen. iv 1005
quod, used absolutely i 82; 623; quod genus ii 194; = quoad ii 248; quod dicunt, dico, aiunt, etc. i 1053; iii 754; quod superest i 50; quod conj. denotes effect, not cause iv 885; vi 740, in illustrations iii 208; vi 250, 335
quone vides? iv 206
quoque out of place iv 532; v 192; vi 474; 577; 905

rabies genit. iv 1083
radii v 1353
rapax of rivers i 17
rareque facit vi 233
ratio i 51; 148
reccido i 228
recello vi 573
rectus = recte ii 217; recta regione ii 249
reddi = ratio reddi i 566; redditus ii 96; reddere ii 228; redditur v 258
redduco i 228
redhalo vi 523
refert victor i 75
refert conveniant seems not Latin (iii 868; iv 1259); refert personal iv 984
regione, e, iv 374; vi 344; recta reg. ii 249
reicit or reiĕcit, not reiicit, i 34; ii 951
relicuus i 560
religio, not relligio, i 63; religiones i 109
relinquo i 515; v 1239; with infin. iii 40
rellatus ii 1001
rellictus iv 761
remigium pennarum vi 743
remordeo iii 827

repenti v 400
repetentia nostri iii 851
repraehendere iii 599; 859; vi 569
repugno iv 1088
res i 25; rerum natura i 25; de rer. nat. ib.; rerum primordia, corpora, semina i 55; res=imagines i 132, iv 167; hac re i 172; res gero i 328; res in an unusual sense i 419, ii 1018; rei, quantity of, i 688, iii 918; rerum summa i 1008; rebus relictis iii 1071; res redibat v 1141
reseratus of a wind i 11
resolvo v 773; ressolui (vi 46); vi 46
respecto v 975
restat with infin. i 1005
restincxit iii 1044
restrictus v 1064
retro volventem vi 381
revictus v 409
revocare ad v 255
rhyming vss. iv 978—981
rhythm or sound answering sense iii 527; iv 517; v 508; vi 119
rictum vi 1195
rideo, of the sea, i 8
rigo iv 202
robur iii 1017
ros i 496; ros salis iv 438
rota solis v 432
rumpere pectora iii 297
ruo vi 726

dropped in verse i 186
sacer ignis vi 660
saecla i 20; 202
saepe v 1231; vi 714
sagax i 50, 402
salso, in, v 1080
saltus v 41
Samothracia vi 1044
sancitus i 587
sanguis (i 853); iv 1050; sanguine sudo v 1131
satiare vi 858
satis causa i 241
sc, sp, st, etc. preceded by a short vowel iv 772
Scaptensula vi 810
scilicet with constr. of scire licet i 210
Scipiadas iii 1034; why called fulmen belli, ib.
scruposus iv 523
scymni v 1036
seminium leonum=leones iii 741
senators' seats in theatres iv 79
Seneca alludes to Lucr. iii 977; 1068; criticises him ii 55 56
senectus, partic. iii 772
senses, certainty of, p. 292 foll.
sensibile tempus iv 775
sententia, periphrastic iii 371
seorsum with abl. iii 564; seörsum, seorsum, sorsum, etc. iii 631
sequax iii 315
sequor i 156; ii 983; iii 930; with infin. v 529
serebant vulnera v 1290
serta iv 1132; 1178
severus iv 460; v 35; 1190
si abruptly beginning a sentence ii 80; omitted iii 935; si credis i 1057; iv 366; si forte v 720; si iam in assumptions for the sake of argument i 968
sic v 970
Sicyonia iv 1125
Sidon, earthquake at, vi 585
signifer orbis v 691
silani vi 1264
silvae v 41
simile est ut cum ii 272; similis with gen. and dat. iv 1211
simulatus i 687
sincerum sonere iii 873
singlariter (vi 1067); vi 1067
soles vi 1219
solidus i 346
solium vi 800
sollicitus v 1214
solstitialis v 617
solvendi poenarum v 1225
solvo of union of atoms i 1108
sonere iii 156
sonitus of thunder ii 1100
sortes iv 1239
species i 148; ad speciem iii 214; iv 236; v 707
spirans bellum v 392
spurcitia v 47

st often transposed in our mss. (ii 275; iv 783; v 227; 1198)
stacta ii 847
sterilus ii 845
stinguere i 486
sto ii 181; vi 1058
Stoics pointed at by Lucr. i 430—480; 459 foll.; 465; p. 160 foll.; i 782—802; 1052—1082; 1083—1113; ii 652; p. 304; v 116; 156; 195—199; v 793; called stolidi i 641; 1068; agree with Epic. v 470
süadent iv 1157
sub iv 545; 785; vi 413
subjunctis suppositisque vi 543
sublimus i 340
suboles virum iv 1232
subruo iv 866
substantive in appos. with sentence vi 392
subtexo v 466
sŭbus, not suibus, in Lucr. (v 970)
succipio iv 1250
succurro v 765
sudor salsus v 487
suësco suëmus suëtus etc. or suesco etc. i 60; suesco and compounds active iv 1282
suffugit, aorist force of, v 150
suffulcio iv 867
summa rerum i 1008; summa omnis, loci, etc. ib.; summarum summa v 361
summissus i 92; 1033; summittuntur iv 953
suo monos., sis, i 1022
super = insuper i 65; 649
superare = superesse i 579
superne ii 1153
suppedito, constr. of, i 230; vix arvis suppeditati ii 1162
suppus i 1061
surpere ii 314
suspensus v 1069
συστάσεις iv 129—142; 736

-t for -d i 672
tabificus vi 737
taciturna silentia iv 583
tacitus v 1091
tactus = tinctus ii 501
taeter i 936
tama (iv 953)
tamen, et tamen, i 1050; v 1177; cum t. ii 29; tamen ii 859; iii 553; iv 952; vi 680
tandem iii 793
Tantalus' punishment iii 980
tanto quique magis iii 700
tautologies i 275; 293; 343; ii 92; 209; 271; 291; 767; 802; 1060; iii 398; 801; 827; iv 274; 340; 451; 453; 583; 766; v 5; 314; 522; 1025; 1147; vi 53; 538; 653
tegmen caeli i 992
templa i 120; iv 624; v 103; 948; 1188; templum versatile v 1436
tempore puncto ii 263
temptare i 530; vi 1104; 1116
tendo (oculos) iv 325; cursum v 631
teneo ne i 1009; teneo neut. vi 519; pocula vi 950; teneo = intellego ii 1173
tener, epithet of air i 207
terebrare, pertundere, perforare v 1268
teres i 35
terminus i 77
terms common to marriage and sacrifice p. 127
tero iv 361
terra, use of plur. of, by Lucr. i 3; pluit in terris vi 630
thalassinus iv 1127
tibia iv 585
timens mortis vi 1240
titillo, epicurean, ii 429
tonitrum vi 164
Tonson, his edition of Lucr. p. 13
tŏtus vi 652
tractari iii 889
trahere neut. i 397; vi 595; 1190
tramite parvo vi 27
tranquillo v 12
transpositions in mss. of Lucr. p. 20—23, 180; ii 658—660; iv 1225—1228
tremibundus with *i* i 95
tristis = amarus i 944
trocleae iv 905
Troiianis, Troiiugenas (i 465)
tum deinde v 1007

[redacted]

tunc before a consonant not Lucretian i 130
tuor i 300
tutimet or tutemet i 102
tympana iv 905
Tyrrhena carmina vi 381

v in alliteration v 993
vacillans iii 504
vacuas auris i 50
vaporo v 1127
varius i 589; v 825
vas iii 440; vas sincerum vi 17
vates, term of contempt i 102
ve=que i 56; vi 533
velatus v 1198
vemens, vementer, not vehem. (ii 1024)
venio with accus. vi 742
Venus iv 1058
vermina v 997
vertere=evertere i 105; neut. iv 1130; vertier ad lapidem v 1199
verutum iv 409
vesci v 72
vescus i 326
vestis of puberty v 673
videlicet with constr. of videre licet i 210
video conloquium iv 598; videor i 224; 270; vi 977; fertur esse videri vi 756
victus ii 1171
violo fidem iv 463
Virgil, does he allude to Lucr. in geor. ii 490? i 78; imitates words with different meaning i 253; vi 626; 700; imitations of Lucr. in geor. ii p. 251—253; imitates rhythm v 202; vi 1140
virus ii 476; 853
vis plur. ii 586; periphrastic iii 296; iv 681; vis abdita quaedam v 1233
viscus i 837; viscera viva v 993
viso, reviso ad ii 359
vitalia iii 820
vivo, vivus, etc. poetically used i 1034, v 476, 538
ultimus proleptic i 970
umerus, umor, etc. i 307
uniter aptus iii 839
unorsum iv 262
unus, plur. of, ii 159; iii 616
vociferor i 732
void, or space, terms for, i 330
volgivagus iv 1071
volucer of fire i 1102
volvendus v 515; volvunt annos v 644; auras vi 1228
voluerunt se claros v 1102
Vossius, Isaac, ms. notes by, p. 19
vota nectere v 1202
usu iii 971; quae and quod foret usus iv 831
ut for ubi not Lucretian (vi 234); t vi 496; ut esset=ut si, tamquam vi 1232
uteri of earth v 808
uti for ut (ii 322; 536)
utrăque iv 86; vi 517; utrumque, ἀμφότερον, vi 499
utrimque secus iv 939
vulnus i 34; ii 639; iv 1049; v 1197; vulnera vasta v 1290
vulta iv 1213

Wakefield p. 14
words transferred from the leading to a dependent clause i 15, iv 397; v 853; out of usual order ii 250, iii 196, 843, iv 193, 905, 1010, v 1414, vi 158, 176, 549, 615, 790

zmaragdi iv 1126

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